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THE CHEMIST AND DRUGGIST is supplied regularly to every member of the following Societies:—

Pharmaceutical Society of Ireland.
 Chemists' and Druggists' Society of Ireland.
 Irish Pharmaceutical Assistants' Association.
 Pharmaceutical Society of Cape Colony.
 South African Pharmaceutical Association.
 Pharmaceutical Society of Natal.
 Pharmaceutical Society of the South African Republic.
 Central Pharmaceutical Association of N.Z.
 Otago Pharmaceutical Association, N.Z.
 Pharmaceutical Society of Queensland.
 Pharmaceutical Society of South Australia.
 Pharmaceutical Society of Tasmania.
 Pharmaceutical Society of Western Australia.

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Books to Buy.

"Diseases and Remedies." A concise survey of the most modern methods of medicine, written expressly for chemists and druggists by physicians and pharmacists. Price 2s. 6d.; by post 2s. 9d.

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Published by THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C., and obtainable from most wholesale houses.

Summary.

THERE is more about the Minor examination on p. 801.

DRUG-BROKERS will be interested in the ballad about them on p. 792.

PROFESSOR TICHBORNE replies to our comments on the 1893 B.P. (p. 800).

THE BOARD OF TRADE RETURNS for October are epitomised on p. 790.

WE give portraits of chemists who were elected mayors on Wednesday (p. 793).

MR. SWANN, the well-known Anglo-French pharmacist, of Paris, died on Tuesday (p. 795).

SOME interesting particulars about the manufacture of citronella oil are given on p. 790.

THE ROYAL AGRICULTURAL SOCIETY call attention to a fraudulent "vitriol" wheat-dressing (p. 775).

EMIN PASHA'S MEDICINE-CHEST has been found in the Aruwhini Dwarf country, and we show it on p. 801.

A BRIGHT LITTLE FUNCTION connected with Mr. Goddard Clarke's silver wedding is reported on p. 774.

SOME THOUGHTS on the work of local associations and their affinity to trade-unionism are expressed on p. 788.

THE PROPRIETORS OF VALENTINE'S MEAT-JUICE seek to restrain the Valentine Extract Company from trading (p. 793).

THE COMMITTEE FOR THE CHEMISTS' BALL (LONDON) has been appointed, with Mr. W. Warren as Secretary (p. 774).

DR. KARL DIETERICH supplements his remarks on the gum-resins of the B.P. with comments on the benzoin monograph (p. 791).

A LADIES' MEDICAL AND PHARMACEUTICAL ASSOCIATION has been formed with limited liability. It promises to be interesting (p. 795).

DR. BERNARD DYER, as analyst for Leicestershire, compliments the chemists of the county on the quality of their sweet spirit of nitre (p. 774).

PROFESSOR RAMSAY lectured to a crowded audience of the Pharmaceutical Society, on Tuesday, on the new gases of the atmosphere (p. 785).

WHY does Gregory's powder not mix with water? This belated question has been discussed by the Chemists' Assistants' Association (p. 784).

THE NEW B.P. STANDARD for almond oil has secured the conviction of a chemist at Melksham, who sold an oil containing ol. amygd. persic. (p. 793).

THE MASTER OF THE ROLLS holds, in the Hubback v. Wilkinson case, that it is not illegal to say that one's goods are better than somebody else's (p. 793).

MR. GLYN-JONES went to Dewsbury on Monday to reply to Mr. Beecham. He spoke; so did Mr. Glover, of Beecham's, and many local chemists. It was a lively time (p. 796).

THE PROGRAMME of the evening meetings of the Pharmaceutical Society of Ireland will be found on p. 779. Eleven meetings are arranged for, apart from the one which the President addressed on Monday.

MR. CLARIDGE DRUCE prefaced his lecture at Birmingham on "The Forest Trees of Great Britain" with cogent remarks on the pharmaceutical examinations, advocating division of Minor and subordination of the science subjects (p. 781).

NICKEL costs as many pence per lb. as twenty-five years ago it cost shillings. This and other facts are mentioned by Dr. D. Watson in an address on "The Present Position of Metallurgy" (p. 782).

CAMPHOR is 1d. per lb. dearer, so are mercurials sulphonal has more than doubled its price; cinchona is very firm, and quinine in an exceptionally strong position, but business is quiet on the whole. Cinchona and drug sales are included in our Trade Report on p. 804.

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Dr. Bernard Dyer on Spirit of Nitre.

At the Leicestershire County Council, on November 2, a report by Dr. Bernard Dyer, County Analyst, was presented. It stated that during the past quarter 51 samples of sweet spirit of nitre had been taken from as many chemists in the county. Dr. Dyer explained that this very popular medicine was included in the late Pharmacopœia under the name of "spirit of nitrous ether." No official indication, however, was given that spirit of nitrous ether meant sweet spirit of nitre. Consequently chemists who, in response to a request for sweet spirit of nitre, supplied an article of inferior strength, had sheltered themselves behind the contention that they did not profess, unless it were specifically asked for, to supply spirit of nitrous ether, but that they simply sold "sweet spirit of nitre," which had no official existence, and no recognised definite strength. Unfortunately, the practice had been fostered by some manufacturers and wholesale dealers in drugs, who supplied articles of different strengths at different prices. In the new edition of the British Pharmacopœia, recently issued, the difficulty had been recognised, and the expression "sweet spirit of nitre" is now a synonym for spirit of nitrous ether. A chemist now, therefore, in response to a request for "sweet spirit of nitre," is bound to supply the official article. Of the 51 samples taken, Dr. Dyer reported that 23 were of first-class quality, 21 were either fairly good or passable on the assumption that they were not very fresh (the article being one that deteriorates on keeping), but seven samples were decidedly unsatisfactory, the proportion of nitrous ether in these varying from one-fourth to one-half of the proper quantity. In no case, however, had there been any watering down. Dr. Dyer stated further that in order to investigate the subject more thoroughly he had obtained from a wholesale house of high reputation, three samples of various qualities or strengths of spirit of nitrous ether, supplied at different prices. The best was in every way satisfactory, but the cheaper ones were very bad. One contained less than one-fifth of the nitrous ether it should have contained, and the other contained scarcely any nitrous ether at all. The firm explained that there was not much demand now for the lower qualities, so that they had been in stock for a long time, and had no doubt deteriorated. They also pointed out that chemists and druggists were not supposed to buy these low qualities for Pharmacopœia purposes, but only for veterinary use. It was decided that as the new Pharmacopœia was so recent no proceedings should be taken, but that the vendors of the seven bad samples should be cautioned, and Dr. Dyer concludes by expressing his opinion that, in view of the vague and unsatisfactory position in which the question of sweet spirit of nitre has rested for so many years, it speaks well for the honour and integrity of the chemists of Leicestershire as a body, that out of 51 samples purchased only seven should have been of such a quality as to call for grave complaint.

The Chemists' Ball.

The chemists' ball will be held in the Portman Rooms on Wednesday, January 18, 1899, and at a meeting held at 17 Bloomsbury Square, W.C., on November 7, the following were elected on the committee to make the necessary arrangements: Messrs. Atfield, Bowen, Bremridge, Cartledge, T. H. Francis, W. Hills, W. H. Mathews, A. J. Phillips, A. C. Preston, J. C. Umney, and W. Warren. At a subsequent committee-meeting Mr. Walter Hills, President of the Pharmaceutical Society, was elected chairman of the committee, and Mr. W. Warren was elected honorary secretary. A letter was received from Mr. T. C. Martin announcing that he felt it desirable for him to retire from the committee, as it was not in his power to render further active service. A resolution was passed expressing the committee's high appreciation of his services on the committee, and as M.C. over such a lengthened period. The committee hope

that a more than usual number of the older as well as the younger patrons of the ball will act as stewards this year, and help to make the last ball in the eighteen-hundreds a success. The honorary secretary will be glad to receive the names of persons who are willing to act as stewards, the liability of each steward being limited to one gentleman's ticket at 17s. 6d., and one lady's ticket at 12s. 6d.

Wholesale Druggist's Silver Wedding.

Mr. C. Goddard Clarke, J.P., L.C.C. (Potter & Clarke, wholesale druggists, Artillery Lane, E.C.), celebrated his silver wedding last week. A large party of private and public friends assembled on Monday at the Surrey Masonic Hall, and after dinner a number of congratulatory speeches were made. One of the neatest was that of Mr. H. A. Potter, who said he had three remarkable things to tell them. First, twenty-five years ago Mr. and Mrs. Goddard Clarke were married; secondly, twenty-five years ago Mr. Goddard Clarke became a partner in the firm; and twenty-five years ago he (the speaker) came into this world. (Laughter.) If they searched history through he did not think they would find three more remarkable events. (Renewed laughter.) Although he had stopped growing now, the business had not, for it grew larger every year. Unlike many businesses, on their affairs they all pulled one way, and they had no lords or dukes on their board of management. Mr. Clarke's Brixton colleague on the County Council (Mr. F. W. Verney) and several other members of the County Council were amongst the company. On Thursday evening the employés of the firm celebrated the event at a social gathering at the same place, Mr. R. C. Wren presiding. On this occasion a handsome onyx-marble clock was presented to Mr. and Mrs. Goddard Clarke. On the clock was a gold plate, and on this the following words were inscribed:—

Presented to Mr. and Mrs. Goddard Clarke, on the occasion of their silver wedding, by the employés of Messrs. Potter & Clarke, as a token of their respect and good will. 1873-1898.

The presentation was made by Mr. Skuse, who concluded a very appropriate speech by a reference to Mr. Goddard Clarke's successful public career, and remarked that they would not be satisfied until Mr. Clarke had added "M.P." to his name. Mr. Clarke having replied in suitable terms, Mrs. Clarke made a happy little speech, in which she remarked that it was sweet to see that others loved and esteemed those whom one loved best of all. A capital entertainment was given by members of the company.

Chemist's Shop Wrecked.

Disastrous results occurred at Mr. C. J. Chamberlain's chemist's shop, 66 Church Street, Warrington, on the afternoon of November 4. The assistant was melting some materials in turpentine for the manufacture of harness-paste, when the gas-stove was accidentally upset. The turpentine took fire, an explosion followed, and the concussion caused other bottles of chemicals also to explode. The side window of the shop was blown out and fire broke out. When the flames had been subdued, it was found that hundreds of bottles had been smashed, while the fittings and fixtures were blackened. The damage is estimated at 200l. The assistant received serious injuries, his face, neck, and arms being shockingly burned. He was removed to the infirmary, where his injuries were dressed.

Defrauding a Chemist.

At Leicester Police Court on November 3 a youth named William Armson was charged with attempting to steal 2s. 6d. by means of a trick from Mr. Frederick William Goodess, chemist, Leicester. The lad had been in the service of Mrs. Barrow, a customer of the prosecutor, and on October 29 he went to prosecutor's shop and asked for 2s. 6d., explaining that he had been purchasing groceries for his mistress, who told him that if he had not sufficient money he could borrow some from Mr. Goodess. This proved to be a fabrication, and when charged with the offence accused said, "I should have paid him back." The Bench dealt with the accused under the First Offenders Act, and bound him over to come up for judgment when called upon.

An Anti-vaccination Chemist.

At Lancaster Petty Sessions on November 5 Mr. Thomas Waddington, chemist and druggist, Morecambe, applied for certificates of exemption from vaccination in respect of two children. Asked by the Bench if he conscientiously believed that vaccination would be injurious to the health of his children, he replied, "I have a conscientious objection." The Chairman: No, no; is the ground of your objection that you conscientiously believe vaccination will be detrimental to the health of your children? Mr. Waddington: It might be. The Chairman: Do you conscientiously believe vaccination will be detrimental to their health? Mr. Waddington: I will swear that. Mr. Waddington was told to answer yes or no, and replied in the affirmative. The certificates were then granted.

Brunner, Mond & Co. Extending.

Messrs. Brunner, Mond & Co., chemical manufacturers, have purchased from the Salt Union the Limekiln estate, covering twenty-six acres, at Lostock, Northwich. It adjoins Bowman, Thompson & Co.'s and Davis's works. The railway and canal facilities are admirable.

Bateman's Pectoral-drops at an Inquest.

Mr. Prickman held an inquest at Winkleigh, Devon, last week, on the infant daughter of Mr. Arthur James Hall. Mr. Hall (lay reader) said on October 28 the child was suffering from flatulence, and he gave her three drops of "Bateman's Pectoral-drops," mixed with water and sugar. In the evening the child had a difficulty in breathing. The next morning, as they could not wake her, she was put in a warm bath, and as that had no effect Dr. Norman was fetched. The child died about noon. He had been in the habit of administering the drops to his elder children with beneficial results. Dr. Norman said the child was in a comatose state and her face was pallid, the symptoms pointing to opium-poisoning. The child had been strong and healthy from birth and was well nourished. He had no doubt death was due to opium-poisoning. He sent the bottle of "drops" to Dr. Slade King, who reported opium present in a well-defined quantity. Witness considered it was wrong to give such a preparation to a young child. The jury returned a verdict of death from opium-poisoning, the opium being inadvertently administered.

The Sale of Laudanum.

An inquest was held at Holmfirth on November 7 relative to the death of Henry Johnson from laudanum-poisoning. Mr. F. B. Shaw, chemist and druggist, deposed to selling deceased laudanum from time to time in $\frac{1}{2}$ -oz and 1-oz. quantities. The Coroner (Mr. J. E. Hill) said he supposed the sales were entered in the register, but Mr. Shaw replied that according to the Poisons Act that was not necessary. The Coroner then asked what was a poisonous quantity, and Mr. Shaw said he was not supposed to say. He had a customer who took 3 oz. daily. The deceased told him the laudanum was for dressing a wound, and also for putting in a cough-mixture. A verdict of accidental poisoning was returned.

Carbolic Acid in St. Luke's.

The annual report of the St. Luke's (Middlesex) Vestry, just issued, shows that during the past year 42 gals. of carbolic acid and 140 cwt. of carbolic powder were used as disinfectants in the parish.

A Bacteriological Laboratory for London.

The vestries of the metropolis are not unanimous in falling in with the suggestion of the London County Council to establish a bacteriological laboratory for London. Clerkenwell, Islington, and St. Luke's speak for the North, each Vestry being of opinion that it is an unnecessary institution, seeing that they have each qualified analysts, and that for a small fee they can get any suspected article reported upon by independent experts.

Fire at a Chemical-works.

A fire occurred on November 7 at the Sheffield Chemical Company's works in Washford Road, Attercliffe. The damage done was not great, and though the fire-brigade

attended their services were not required. Inquiry showed that the fire had been caused by chemical action being set up among some bags of nitrate of soda.

Football.

On Saturday, November 5, at Homerton, the Westminster College F.C. beat Davy, Hill & Son, Yates & Hicks F.C. by 5 goals to 3.

On November 5, the return match between the Metropolitan College of Pharmacy F.C. and the South London School of Pharmacy F.C. was played at Wormholt Farm, Shepherd's Bush, and resulted in a win for the "Metropolitans" by 6 goals to 1.

On Wednesday Westminster College students played as Wales v England, at Balham, before fully 200 spectators. England won—3 goals to nil.

Fraudulent Wheat-dressing.

A spurious dressing for smut in wheat was brought under the notice of the Royal Agricultural Society last week. A large farmer and extensive wheat-grower sent two samples of materials sold to him as "wheat-dressing." One was found to be genuine sulphate of copper, but the other, on analysis, proved to be a mixture of sulphate of iron and sand, coloured with Prussian blue. This mixture was sold as "finely ground vitriol, specially prepared as a dressing for wheat." The price paid for this mixture was 28s. per cwt.

L.C.C. and the Shop-hours Act.

At the London County Council meeting on November 8 the Public Control Committee reported the desirability of a more complete system of shop-inspection than has been possible with the existing staff. It was recommended that six male inspectors, at a salary of 150*l.* each, and three women inspectors, at a salary of 100*l.* each, should be appointed for one year under the Shop-hours Act. The report was adopted.

Shop-breaking.

The two men Martin and Downes, who were last week charged with breaking into and stealing 4s. in coppers from the shop of Mr. H. J. Ison, chemist, Shrewsbury, were brought up on remand at Shrewsbury Police Court on November 8. After the evidence of Mr. Ison had been repeated, and further evidence given by the police, the prisoners were committed for trial to the assizes.

The Errand-boy Punished.

At North London Police Court, on November 9, Charles Hesketh, an errand-boy to Mr. John Bassett, chemist, 162 Green Lanes, was charged with stealing 2s. and a syphon of soda-water, valued at 2s 4*½**d.*, the property of his master. He was sent with a florin for some stamps, and did not return, and when caught admitted stealing the syphon. The Magistrate ordered the youngster to receive four strokes with the birch.

It Might have been Worse.

A serious accident, happily attended with no loss of life, occurred at the factory of T. F. Bristowe & Co., wholesale perfumers and manufacturers of soap, Clerkenwell, on November 9. Over the soap-stamping department there is a large skylight, the supports of which had become weakened through some unknown cause, and the whole mass of the glass came down on the spot where the stampers are generally at work. Fortunately, the hands had just left, otherwise loss of life must have resulted.

Boots at Swansea.

Messrs. Boots (Limited) are likely to be landed in some litigation over extensions to their Swansea premises which are at present being carried out. A couple of years ago the company took a lease of some extensive premises on the corner of Goat Street and Oxford Street, portion of which was let to other tradesmen. Quite recently Messrs. Boots have been adapting the whole of the premises to their own use. The ground landlord contends that under the terms of the lease the company had no authority to carry out structural alterations without his sanction, and he has issued a writ claiming damages.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Business Change.

The Ulster Chemist Company (Limited) have taken over the business of "The City of Derry General Drug Warehouse," formerly carried on by Messrs. David, Galbraith & Co., 1 Sackville, Londonderry.

Personal.

Mr. Henry Hunt, President of the Irish Pharmacists' Association, has been appointed by the Board of the Adelaide Hospital, Dublin, to the position of staff-apothecary and demonstrator in pharmacy to that institution. The position is a coveted one, and carries with it certain valuable extras.

The Cork Case.

It is expected that the Pharmaceutical Society of Ireland will appeal to the Court of Queen's Bench against the decision given a few days ago in the Cork Police Courts dismissing the action brought by the Society against Messrs. Waters & Co. (Limited), for the alleged illegal use of the term "dispensing chemist."

The Guinea Fee.

Speaking at the annual meeting of St. Vincent's Hospital, Dublin, Surgeon McArdle said there was a notion abroad that unless a doctor held out for a guinea fee his status in medicine would be lowered. He wished it to go out from that meeting that there was no indignity in a half-crown or five-shilling fee being taken, according to the circumstances of the patient.

The Cork Medicine-contract.

The Cork Chemical and Drug Company, to whom the medicine-contract was given, have promptly replied to the letter which Messrs. Leslie, of Dublin, sent to the Guardians the week before. Messrs. Leslie intimated in their letter that the reason they did not compete was that they had heard on good authority that their tender on former occasions had been lower than that of the firm to whom the contract was awarded, and consequently that it was a farce for the Guardians to advertise. The Cork Chemical and Drug Company, "the firm referred to," wrote to the Guardians asking that the figures of the competing contractors should be published, not only for the current half-year, but for several years past. When this letter was read, Mr. Bannister (a Guardian) stated that considerable trouble had been taken a few years ago to get a right basis for this contract, and it was determined to take the whole of the articles consumed by the Union and price them, and the tender which worked out lowest was accepted. The Clerk said the tender of the Chemical Drug Company, when calculated on that basis, came to 507*l.*, whilst that of Messrs. Leslie came to 571*l.*

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

At the Glasgow Botanic Gardens.

The students of the Glasgow and West of Scotland School of Pharmacy, along with their Principal (Mr. Barrie), paid an instructive visit to the local Botanic Gardens on Saturday last to examine the wonderful pitcher-plants, orchids, and sensitive plants being raised there.

Golf-competition.

In connection with the Edinburgh and District Chemists' Golf Club competition, the tie to decide the holder for the Gibson handicap medal for the year was played off at the Braids last week, and resulted in favour of Mr. W. C. Baker

with the score of 94 less 12 = 82. This finished the competition for the season.

A Chemist's Law-suit.

Mr. James F. Tocher, chemist, Peterhead, had an action in the local Sheriff Court, on November 4, in which he claimed 100*l.* damages, for failure to fulfil a contract, from a boot-manufacturer to whom Mr. Tocher had let a shop. He claimed that the defendant had agreed to take a lease of the premises, and had entered into possession in view of the lease. The defendant, however, said his tenancy was not in virtue of the alleged lease, and the Sheriff supported the defendant's contention.

Chemists on Councils.

Mr. W. B. Dougall has been elected a member of Auchtermarder Parish Council.

Mr. John H. Fisher has been elected to the Town Council of Dunfermline.

Mr. David McLaren, chemist, South Clerk Street, Edinburgh, has been re-elected to the Edinburgh Parish Council.

Mr. W. G. McCall, of Messrs. J. and W. G. McCall, Edinburgh and Leith, has been returned to the Leith Parish Council.

South African News.

(From our own Correspondents.)

THE CUSTOMS CONVENTION was approved by the Legislative Assembly of Cape Colony on October 31 by 60 votes to 16.

A NEW BACTERIOLOGICAL INSTITUTE.—The Cape Government has opened a new Bacteriological Institute at Capetown under the control of Dr. Kolle. The leprosy patients on Robben Island are to receive special attention by the doctor.

SOUTH AFRICAN TRANSIT (BOND) RATES.—The *Colonial Government Gazette* announces that a reduction of 2 per cent.—from 5 per cent. to 3 per cent.—is to take effect immediately on merchandise in transit beyond the frontier—i.e., to the South African Republic and Rhodesia. This brings the Cape rate down to that in force at Delagoa Bay and Beira. The *Cape Times* states that this means a sacrifice of upwards of 60,000*l.* on Johannesburg traffic alone.

WAR TO THE PRICKLY PEAR.—Home readers can scarcely realise what a pest the prickly pear is, and departments for agriculture, wherever the plant exists, are one in trying to destroy its existence. Mr. Rudolph Demuth, a consulting chemist of Capetown, contributes a letter to the local press in reply to some correspondence, and claims to have discovered when in Australia a method to effectually and cheaply destroy the plant. He says his process was favourably reported on by the N.S.W. Department for Agriculture. Probably the Cape Government will experiment with Mr. Demuth's method.

NO PAY, NO CURE.—A Mafeking correspondent reports a letter in a local paper, in which the writer, resenting the idea of paying cash for medical advice, complains of not being able to get a prescription made up without first paying the doctor's fee. It appears that it is the custom there for doctors, when prescribing for an unknown patient who does not offer to pay at the consultation, to place a mark on the prescription signifying to the chemist that he must collect the doctor's fee. Some such arrangement is a necessity in a place with such a migratory population as Mafeking has. Some people come to the place who do not care to pay a doctor at all, at any rate until they know whether his prescription has done them good or not. Some other amiable being, a little while ago, overflowed with indignation because one of the chemists was not at his store one Wednesday afternoon when he called. All other stores in town close at 1 on Wednesday, the chemists from 2 to 6 P.M.; and it seems that someone begrudges them that brief "half-holiday."

French News.

(From our Paris Correspondent.)

A MERCHANT'S OPINION ON FRENCH TRADE.—The attention of the French public is so taken up by the Dreyfus case that the Fashoda question has, in reality, passed comparatively unnoticed here, and business people have not seriously considered the possibility of war or the consequences that might result from such a contingency. One of the leading Paris Commission merchants, who does a large business with English-speaking countries in French perfumery, pharmaceutical preparations and similar goods, assures me, however, that many of his customers abroad have taken quite a different view of the recent strained relations between France and England. In fact, he has shown me indents marked with such reservations as, "To be cancelled in the event of war," "Delivery to be postponed as we may direct, in case of war," &c. Of course, manufacturers would not put orders in hand on such terms, and a somewhat serious dead-lock in business might have resulted had not Lord Salisbury and M. Delcassé come to terms. The merchant in question added: "We do business with English-speaking countries only, and are quite satisfied to seek no other markets. The English policy of open markets, or of putting all countries on the same footing in her colonies, is a great encouragement to trade. It is the commercial instinct that will be the great factor in bringing about a closer understanding between England and the United States, besides which it may be predicted that a militant foreign policy on the part of the latter country would bring her to larger exports, and ultimately to free trade. A war between France and England would be disastrous to the former country from a commercial point of view, because her export-trade would be confined to her land frontiers, a most serious thing for the manufacturing section of our population. To show how good trade is between France and some of the English colonies, I can quote an instance. The Messageries Maritimes, as you know, run a special line of steamers from here to Australia, and my firm has had a shipment delayed two months through lack of room on these boats."

THE BAKERS' COMPETITION.—I took occasion recently to call at the Boulangerie St. Augustin, 55 Boulevard Malesherbes, Paris, regarding the medico-hygienic bread mentioned in the *C. & D.*, of October 22, and was able to obtain a few further details. It appears that the idea originated with a lady-doctor, Mme. de Mezeray, 27 rue Cambes, who came to the conclusion that the drugs so successfully administered in wine might be, with equal advantage, blended with the staff of life. Numerous experiments were made before the difficulties were overcome, viz.:—Of avoiding any chemical change in the nature and efficiency of the drugs during the baking; of avoiding any change in the taste of the bread, or in its properties of keeping good a certain time. These obstacles overcome, the bread was tried for adults at the Tenon Hospital, afterwards at the Pitié Hospital, with satisfactory results. The next step was to test its effect on the more susceptible organisms of children, which was done at the *Enfant Jesus* (Children's) Hospital, and at the two hospitals already mentioned. Subsequently, the general public were allowed to share in the benefits of the discovery. A neighbouring baker accepted the task, a somewhat perilous one, as the opposition of the pharmacists might lead to prosecution. To avoid infringing the law, which forbids the preparation of medicaments by unqualified persons, Mme. de Mezeray decided to dose the bread personally each time a batch was baked, and this she continues to do. On the other hand, it was necessary to guarantee a uniform medicated quality of bread, and to assure the exclusive rights to the article, the trade-mark was registered, and the formula deposited with the Academy of Medicine. Several depôts exist in Paris besides the Boulangerie St. Augustin. The article has been but little advertised, and the name of Mme. de Mezeray, who, it is stated, does all this with a purely philanthropic object, does not appear on the prospectus, and is not generally known in connection with it. The bread is used by the Sisters of Charity at their establishments in the rue de Douai and the rue Ampère. This is the view of the baker who bakes the medico-hygienic bread: we shall know that of the pharmacists as well as the exact steps they intend taking in the matter later.

Colonial and Foreign News.

FROM MOTHER SEIGEL.—The estate of the late Mr. Andrew Judson White, the founder of the firm of A. J. White & Co., has been valued at \$300,000 in realty and \$450,000 in personal property. He leaves everything to his widow and his son.

AN INTERNATIONAL POULTRY EXHIBITION (the first of the kind) is to be held at St. Petersburg in May, 1899. Poultry foods and medicines will be accepted for exhibition. The headquarters of the Exhibition Committee are at the Imperial Agricultural Museum, St. Petersburg, who have prepared regulations in English.

OPIMUM IN CEYLON.—A select committee in Ceylon has considered the opium question, and has recommended that the sale of the drug should be restricted to the hours from sunrise to 8 P.M., and the quantity sold at one time to any individual should not exceed 180 gr. Consumption on the premises and adulteration of opium are prohibited; also that it should not be sold to any person under 15 years of age.

N.A.R.D.—At a meeting held at St. Louis, Mo., on October 17 to 20, the National Association of Retail Druggists was formed. It is to play a similar part to our Federation of Chemists' Associations, but will be "a central body for the improvement of the business conditions of the retail drug-trade." Simultaneously a very successful meeting of the National Wholesale Druggists' Association was held in the same city.

NEW JAPANESE TARIFF.—An official notification has been received at the Board of Trade, through the Foreign Office, to the effect that cargoes of vessels which may arrive in Japanese ports on or before December 31 next, but which may not be cleared through the Customs until after that date, will be admitted by the Japanese Government under the old scale of Customs duties. The new Japanese tariff will come into force on January 1, 1899.

THE PHARMACY ACT IN CANADA.—The Quebec Pharmaceutical Association have recently instituted proceedings against several retail traders in the Dominion for infringements of the Pharmacy Act. Three firms in Quebec, one a storekeeper in St. Laurent, one in Montreal, and another, Ste. Cunegonde, have been summoned to appear before the Supreme Court for retailing, dispensing, and compounding poisons, and for selling poisonous patent medicines, they not being registered pharmacists.

BRISK BUSINESS.—The Colombo Apothecaries' Company (Limited) had a great clearing-sale last month, and in connection with it bought stamps to the value of 5,034rs. (90,000 stamps). This is said to be the largest purchase of stamps at one time by anyone in Ceylon. It was to cope with parcel-post orders, and for the same purpose the company have erected special staging with several tiers, on which are placed the parcels as they are packed. We ought to explain that the company does a general-store business.

YELLOW-FEVER SERUM.—A medical commission appointed by the Brazilian Minister of the Interior to report on Dr. Domingos Freire's yellow-fever discoveries has reported:—(1) That the *micrococcus xanthogenicus* Freire is found in the venous and capillary blood of yellow-fever patients; (2) that the inoculation of pure cultures of this microbe in guinea pigs, rabbits, monkeys, and dogs, causes yellow fever; (3) that attenuated cultures of the microbe are immunizing and should be employed for the prevention of yellow fever; (4) that the salicylated serum is most efficacious in the treatment of yellow fever when employed in the first period of the disease and in suitable doses.

CANADIAN PHARMACEUTICAL EXAMINATIONS.—At the semi-annual examinations of the Pharmaceutical Association of the Province of Quebec held last month in Laval University, Quebec, seventeen candidates presented themselves for the Major examination, and twenty-seven for the Minor, and of these five of the Major and thirteen of the Minor candidates passed—viz., as licentiates of pharmacy: George H. Voss, H. A. Gourlay, C. A. Brault, Oscar Turgeon, and D. R. Oncill; as certificated clerks: F. W. Horner, J. N. Farley, M. Albert, T. E. Gagner, H. St. Georges, A. D. Quintin, A. C. Frost, A. E. Francœur, M. J. Gadbois, A. J. Bedard, O. H. Tansey, L. Achille Roy, and Alfred Brunette.

New York Notes.

(By the Man from London.)

BLEACHED HAIR BABIES.—Some mothers in New York carry their fad for the well-known blonde-coloured hair so far as to bleach the hair of quite young children, and actually that of babies in arms, and it is not uncommon by any means to see a child with hair dark near the scalp, straw-coloured in the middle, and nearly white at the ends. Thanks to H_2O_2 !

DRUGGISTS' SIDE-LINES.—Most pharmacists here carry a good line in writing-paper and envelopes put up in neat attractive boxes; it makes a very profitable side-line. I notice also that many druggists here keep a high-grade confectionery, such as chocolates and fancy candies.—It is strange that the profitable trade in photographic materials and apparatus should be nearly totally neglected by New York pharmacists, as it used to be by London chemists.

TOPICAL ADVERTISEMENTS.—A window-sign in a drug-store in this city attracts considerable attention. It reads: "We should like to C—U—B—A customer of ours." The word Cuba is in large letters in the centre of the card.—The maker of a toilet-soap has reproduced Colonel Roosevelt, the rough rider, in the shape of a figure about 3 feet high, which graces the windows of drug-stores in every street in New York.

DANGER FROM FOOD-PRESERVATIVES.—During the last few months some serious cases of poisoning from food-preservatives have happened. In one case a family of seven persons were seized with excruciating colic, accompanied with nausea and vomiting, the trouble being traced to the milk, which had been preserved by boric acid. Some of the same milk was given to half a dozen chickens, and killed all but one. It is asserted that boric acid, taken even in medium doses and at regular intervals for some time, has a tendency to develop and foster kidney-disease, and to transform such already existing into one of a chronic, malignant, and fatal character.

EDUCATED BRAINS WANTED.—Professor B. G. Wilder, who occupies the chair of physiology in Cornell University, is sending out circulars to the great men of New York and other cities requesting them to bequeath their brains to the University in the interest of science. At present, the professor says, the study of human brains is limited to those of the suicides, insane persons, or of paupers dying in hospitals; the desirability of procuring healthy brains, and especially the brains of men whose possession of high mental power was certain, for scientific uses is apparent. Dr. Wilder is an industrious collector of brains, and has also a large assortment of cats' brains—a fact which the Cornell students have immortalised in a song, sung to the tune of "John Brown's Body," beginning "Old Dr. Wilder went a-prowling after cats."

ACCIDENT TO A CHEMICAL LECTURER.—Professor Irving W. Fay was experimenting with red phosphorus and liquid air before a class on October 21, at the Brooklyn Polytechnic Institute, when an explosion occurred, which it was at first thought had totally destroyed his eyesight. A student was also seriously burned. The professor, who is a scientist of wide experience, had placed some powdered red phosphorus in a glass and poured some liquid air upon it, and the result was watched intently by the students, who pressed around the professor. There was apparently little change, except that the phosphorus grew a lighter red, and the liquid having evaporated the professor is stated to have turned the contents of the glass on to a pine-topped table coated with paraffin wax and commenced stirring the mass with a glass rod. Suddenly a blinding flash came from the red powder, a terrific report, and flames leapt up in the professor's face, burning the hair on the front of his head to the scalp, and taking his eyebrows and moustache off. The physicians have hopes of saving the eyesight, and the burns are only superficial.

SUICIDES IN NEW YORK.—Seldom a day passes without the papers reporting two or three suicides, either by taking

carbolic acid or shooting, the former means of self-destruction having by far the greatest percentage, as I believe is the case in England. From July 1, 1894, to July 1, 1895, there were in New York 1846 cases of successful and 1410 cases of unsuccessful suicide, and in 1,177 of these cases poison had been used.

AN AMERICAN HAIR-TONIC:—

Tr. cinchon. co.	...	...	...	5ij.
Tr. cantharides	...	...	...	5ij.
Glycerin	...	...	...	5j.
Oil of bay	...	...	...	5ij.
Tr. poke-root	...	...	...	5ss.
Tr. benz. co.	...	...	...	5ss.
Tr. aurant.	...	...	...	5ss.
Spt. ammon. arom.	...	...	...	5ss.
Alcohol	...	...	...	3xlviij.
Aqua dest. ad	...	...	...	Qiv.

Mix and filter.

One or two of the above ingredients may read peculiar, but this is the formula of a hair-tonic which sells well here and gives satisfaction.

Business Changes.

Notices of changes in the retail trade, and opening of new businesses, are inserted in this section free of charge, if properly authenticated.

BOOTS (LIMITED) have opened new premises in St. Albans.

MR. J. J. SMITH, chemist, will shortly open a new pharmacy in South Ashford, Kent.

MR. P. R. BEATTIE, chemist, Dundee, has opened a handsome pharmacy at 1 Brunsfield Place, Edinburgh.

MESSRS. CLARKE & Co., chemists, Kingston-on-Thames, are about to open new business premises at High Street, Teddington.

MR. OWEN JONES, chemist and druggist, Nevin, has purchased the business of Mr. John Edwards, chemist, Penmaenmawr.

MR. FRED ORCHARD has taken over the business lately carried on at Highbridge by Mr. F. S. Carpenter, pharmaceutical chemist, Burnham.

MESSRS. BOOTS (LIMITED) have taken a private house in Alexandra Road, Moss Side, Manchester, which they are converting into a pharmacy.

MR. S. R. ANNESS, pharmaceutical chemist, 23 Westgate Street, Ipswich, has disposed of his business to Messrs. Pain & Bayles, of 17 Cornhill, Ipswich.

MR. WM. WOLSTENHOLME, chemist and druggist, Hunmanby, E. Yorks, has purchased the business of the late Mr. J. Taylor, Woodhouse, near Sheffield.

MR. R. W. DUNN, chemist, Dalry Road, Edinburgh, has disposed of his branch business at Gorgie Road to Mr. J. Walker, chemist, Newcastle-on-Tyne.

THE Cash Supply Stores (Limited), Halifax, who carry on a drug-department in connection with their business, have opened branch premises at Silver Street and Central Street, Halifax.

MR. DAVID MASON, chemist, 104 Raeburn Place, Edinburgh, has purchased the business formerly conducted by Mr. D. Macdonald Smith, at 33 Comely Bank Place, which he will carry on as a branch.

MR. W. HAYTHORNTHWAITHE, of Cowes, has purchased the business lately conducted by Mr. A. C. Ridding, at Docking, Norfolk. Messrs. Smith & Sons, wholesale druggists, of Norwich, arranged the transfer.

WE understand that Messrs. C. Gross & Co, 9 Mincing Lane, E.C., have, from November 1, ceased to represent Messrs. Schimmel & Co., of Leipsic, who, it is reported, propose to establish a branch in London.

Pharmaceutical Society of Ireland.

THE Council met on November 2, at 67 Lower Mount Street, Dublin. Present:—Mr. R. J. Downes (President), in the chair; Messrs. Bernard, Bittain (Drogheda), Connor (Newry), Grindley, Kelly, Michie, Walsh, and Wells.

THE CASTLE AND PHARMACY ACT FINES.

A letter from the Under-Secretary, Dublin Castle, enclosed a copy of a memorial from James Hogg, who had been fined 5*l.* at Belfast Petty Sessions for unlawfully keeping open shop for compounding medical prescriptions, asking the Privy Council to remit the fine.

The PRESIDENT read a copy of a letter which he had addressed to the Lord-Lieutenant and Privy Council on the subject, pointing out why the fine should not be remitted or abated.

On the motion of Mr. BERNARD, seconded by Dr. WALSH, the President's letter was approved.

STANDS OVER.

A letter from Mr. William J. Wade, in reference to an application made by him to be admitted to the Licence examination was considered, and the matter was deferred until the next meeting.

METHYLATED SPIRIT.

A letter was sent from the Board of Inland Revenue to the effect that they saw no reason why there should be any change in the law with regard to the sale of methylated spirits.

Mr. BERNARD: I don't think the grocers are allowed to have it.

The PRESIDENT: They are. They may keep it on sale provided it is not consumed on their premises. I was written to by the Board for information on the subject and informed them of a fact which I had ascertained—namely, that a woman walks along the banks of the canal at night laden with noggin bottles of methylated spirit, which she sells at 6*z.* apiece.

THE SCHOOL.

Several reports were disposed of. One from the School Committee stated that they could not accede to an application which had been made on the part of students in the Botany and Materia Medica School, asking that those who desired to supplement their courses should not be charged an additional fee.

EXAMINATIONS.

Dr. H. C. Tweedy and Mr. S. Brown were elected to conduct the Preliminary examination; Mr. J. Smith was elected examiner in the botany and materia medica division of the Licence examination; Mr. J. Guiler and Dr. D. J. McKinney were elected to hold the Registered Druggist examinations in Dublin and Belfast; and Mr. W. V. Johnston was elected to hold the pharmaceutical assistants examination.

A motion of which the Vice-President had given notice relating to the Licence examination was postponed.

NEW MEMBERS.

The following gentlemen were elected members of the Society:—Mr. James Allen, Lisburn; Mr. David Smeaton Bennett, Cork; and Mr. Edward M. D'Arcy, Dublin.

The Council then adjourned.

EVENING MEETING.

THE opening evening meeting of the session was held at 67 Lower Mount Street on November 7, Mr. Robert J. Downes (President) in the chair. Among the correspondence read was a letter from Mr. C. L. Doran, Bray, to the effect, that owing to want of time, and residing so far away from Dublin, he did not purpose to offer himself for re-election as reporter in chemistry to the Society. Regret was expressed at Mr. Doran's decision. Mr. J. S. Ashe likewise retired from the executive.

THE PRESIDENT'S ADDRESS.

The PRESIDENT opened his address by reading two extracts from an address delivered by Sir Rowland Blenner-

hassett, President of the Queen's College, Cork. The first referred to the practice, prevalent in German universities, of encouraging original work, rather than always preparing the students for examination. The other extract referred to the absence of scientifically trained men in British trade. It was certain, said Sir R. Blennerhassett, that if this condition of things goes on every industry in which chemistry plays a part must take its departure from these kingdoms. "This result cannot be hindered by polytechnics and technical schools for the multitude. The nation will have to realise that so-called degrees, based on a mere textbook knowledge, or that a certificate for acquaintance with methods of analysis, is no proof that the person who holds it has had a scientific training. Our system of examination is a most admirably constructed one for the slaughter of intellect. There it is successful; in everything else it is a fraudulent failure." These excerpts, the President thought, indicated what their evening meetings were constituted for. The licence examination, said the President, should be regarded as the minimum requirement for entrance into the pharmaceutical calling, and instead of candidates asking or expecting to be allowed marks to give them the requisite standing, men should be ashamed of passing on, or near to, the minimum, and should prepare themselves not merely for the purpose of "passing," but of taking and holding a respectable position among pharmacists, and of improving that position not only among ourselves, but before the public. It should be the ambition of every licentiate to be able to inform the public that he had added to the world's knowledge, or to its benefit through the application of already-gained knowledge to some new purpose. To devise some means of recognising merit in connection with our meetings, and by which we can encourage and reward effort, said the President, has long been my desire, and I hope I may yet attain it. The work may be as Sir Rowland says, "a very trivial contribution to science." But this is not the question. "The spirit it evokes is the important matter." No doubt as the Society ages, and our members realise more that it is an advantage to prepare a contribution for discussion at these meetings, and as our members become increasingly more competent to discuss and criticise them, the value of any reward we may give will be considerably enhanced.

The election of a new committee was then proceeded with, and the following were chosen for the ensuing session:—Miss Ada Wyatt, and Messrs. W. V. Johnston, J. Michie, J. Tyrie Turner, J. Smith, and H. O'Connor. The last-named gentleman was unanimously re-elected honorary secretary.

Reporters were appointed as follows:—Section of pharmacy, Mr. W. V. Johnston; section of chemistry, Mr. Henry Hunt; section of materia medica, Mr. J. Smith.

It was stated that it was not improbable the idea of having a library in connection with the evening meeting would be well received by the School Committee. As yet, however, a decision had not been given in the matter. The Honorary Secretary was directed to write to the Registrar to remind the Council of the matter.

The programme for the ensuing session is as follows:—

November 14.—Lecture: "Plants and Insects" (illustrated by limelight), by F. W. Moore, Esq., M.R.I.A. (Royal Botanic Gardens).

November 28.—Paper: "The Pharmacy of the Organoids," by J. C. McWalter, L.R.C.S.I., M.P.S.I.

December 12.—Lecture: "The Chemistry of Incompatibility, and some of its Lessons" (illustrated by experiments), by Professor Walter G. Smith, M.D., &c.

December 26.—No meeting.

January 9, 1899.—Paper: "Some Dispensing-difficulties," by J. A. Walsh, L.R.C.P., M.P.S.I.

January 30.—Musical and social evening.

February 13.—Paper: "Compressed Tablets," by George Brown M.P.S.I.

February 27.—Lecture: "The Germination of Barley: a Study in the Localisation of Enzymes" (illustrated by limelight), by A. Forbes Watson, B.Sc.

March 13.—Paper.

March 27.—Lecture: "New Official Preparations," by J. H. Baskin, L.R.C.P., M.P.S.I.

April 10.—Paper: "Petroleum-products," by R. J. Downes, President Pharmaceutical Society.

April 24.—Closing meeting.

Trade Notes.

MR. JOHN DAVIS, of 24 Queen Victoria Street, E.C., sends us his "Domestic Year-book" for 1899. It is an almanac with which are incorporated sick-room, household, nursery, toilet, and other hints such as may promote the chemist's business. With each month's calendar is given the portrait of a saint or saintess whose fête-day falls in that month.

MR. VINCENT WOOD, of Victoria House, Albion Place, Blackfriars, has just published a useful price-list of helts, trusses, bandages, chest-protectors, elastic hosiery, and many other goods, all the articles being illustrated. He is producing for the benefit of his chemist-customers similar lists with retail (instead of wholesale) prices attached, and a third without any prices at all being named.

THE continued development of the business of Messrs. Burroughs, Wellcome & Co. has necessitated considerable extensions of the offices and warehouses at Snow Hill Buildings. The six-storeyed buildings, Nos. 42 and 43 Snow Hill, having a frontage of more than 50 feet, have been recently acquired, and are now undergoing the necessary alterations to adapt them to the requirements of the firm.

X-RAY APPARATUS.—We alluded a few weeks back to a new and compact form of x-ray apparatus which H. W. Cox (Limited), Cursitor Street, Chancery Lane, W.C., make for field use. A demonstration of its use on the field took place during some manœuvres of the 1st V.B. South Staffordshire



Regiment at Wardend, Birmingham. Dr. Hall Edwards was the operator, and test-cases were prepared by inserting bullets under the bandages. The apparatus has been designed to stand rough usage, and was tested for this by driving the ambulance-wagon containing it over some rough ground. In the engraving which we reproduce (by permission of the proprietors of the *Graphic*) the apparatus is shown in actual use. The experiments show that the transport difficulty, which has been considerable, has been overcome, and this form of apparatus will probably become the standard pattern for ambulance use in the army.

ORANGE-WINE.—Mr. John Clark, pharmaceutical chemist, of the Galos Works, Newcastle-on-Tyne, and manager of the Mawson Filter Company, has, after considerable experiment, succeeded in producing an orange-wine for pharmaceutical purposes which has several points of distinction. In flavour it is as superior to many orange-wines as *tr. aurantii* recent. is to *tr. aurantii* made from dried peel; it is also pale in colour, and is free from excess of lime-salts and sugar, and contains no added preservative. In consequence the wine

makes a perfectly clear vin. quinine which does not deposit, if we may judge from a sample which has been under our observation ten days.

SMITH'S PRINTING AND PUBLISHING AGENCY, who have made a speciality of doing printing for advertisers in connection with their business as advertisement-agents, have found their printing business develop so rapidly that, after several moves in London, they last year bought land at St. Albans, and they have just opened fine new works, 600 feet long by 60 feet wide, which will give them plenty of space to do all the printing and lithographic work required by their clients. They have put in the newest machinery, and are also building a colony called "Flectville" for their work-people. An illustrated account of these works is given in the November number of *Advertising*.

HEWLETT'S B.P. NOTES.—Shortly after the new British Pharmacopœia was published we mentioned that Messrs. C. J. Hewlett & Son, Charlotte Street, E.C., had prepared and published a compact digest of the alterations and additions to the work. Since then, we understand, the firm have circulated 11,000 copies of the booklet, including copies (by request) to the materia-medica classes of the Glasgow and Melbourne Universities. The "Notes" have now reached a third edition, and are printed quarto size, in a grey instead of a dark-red cover. The notes are considerably amplified in number, and include a series of useful tables, which pharmaceutical as well as medical students will find advantageous in their work. Considering that the object of the "Notes" is not to criticise the B.P., but to tell what is new in it, the pamphlet is well done, while the wide margins will enable the user to add any observations he may desire. Copies may be obtained from the firm on application.

Not at the Brewers' Exhibition.

IT is getting a practice among certain manufacturers who do not take space at the Brewers' Exhibition to have simultaneous shows of their own. Among those which have been brought to our notice was a special exhibition made by Messrs. Hayward-Tyler & Co., of Whitecross Street, E.C., who invited members of the trade to see their machinery at work at the above address. Among the machines to which special attention was drawn was a hydraulic tincture-press for making the tinctures for flavours, a steam syphon-filler, a manual machine for filling screw-stoppered bottles, with a capacity of about thirty-five dozen per hour, and one for steam-work, and two new labelling-machines, one for labelling the bottles and the other for labelling the corks.

Messrs. Durafort & Son, of 162-164, Boulevard Voltaire, Paris, ask us to state that they decided not to exhibit this year at the Brewers' Exhibition. Their agent, Mr. E. Schmolle, of 42 Gutter Lane, E.C., is about to call on their customers to show the novelties of the firm. They especially wish to direct attention to their porcelain-lined syphons.

Messrs. Brathay & Hinchliffe (Limited) had a large exhibit of their machines and accessories at their showrooms in Manchester, Glasgow, and London.

WHY THE CHEMIST LOST A CUSTOMER.—The other day a chemist was awakened, about one o'clock in the morning, by a boy clamouring at his shop-door. Opening his bedroom-window, he saw a small boy, who was gesticulating wildly. "What's the matter?" inquired the chemist. "I want a penn'orth o' camphorated chloroform for t' toothache," howled the lad. The chemist was not overjoyed when he found how small the order was for which he had been so rudely awakened from his slumber; but, taking pity on the sufferer, he dressed himself and went downstairs to supply the much-desired relief. While measuring the drug, he could not help doing a growl at the lad. "It's like your cheek," he observed, "to wake me up at this time of the night for a paltry pennyworth of chloroform." "Oh, is it?" said the boy, resentfully; "then I'll take my custom somewhere else. You can keep your chloroform. I won't have it now, for your impudence." And he didn't. He went off quite indignantly, nursing his jaw, to wake up another chemist.—*Tit-Bits*.

The Winter Session.

Midland Pharmaceutical Association.

THE winter session of this Association was opened on November 3, when Mr. G. Claridge Druce, M.A., F.L.S., of Oxford, delivered an address on "The Forest Trees of Great Britain." The meeting took place at the Grand Hotel, Birmingham. Mr. Jeffrey Poole (President) was in the chair, and there was a large attendance, including many ladies. The new secretary, Mr. Brunt, had made excellent arrangements.

Mr. DRUCE prefaced his address with some remarks concerning the profession generally. So much, he said, had been spoken and written about the subjects they, as pharmacists, had at heart, that he was like a traveller over a country which had been subjected to a visitation of locusts, and few and far apart were the relics he could gather for their refreshment.

THE BUSINESS THEY FOLLOWED

was an anomalous one. Originally it was mingled with the practice of medicine, when that was the only professional rival of the priestcraft, and probably these were formerly united, so that the priest was also the physician, having literally the gates of life and death and the fears rather than the hopes of the future at his command. In the course of ages segregation took place not only as regarded the priest and the



MR. G. CLARIDGE DRUCE, M.A., F.L.S.

physician, but also in the separation of the physicians from the crowd of surgeons, barbers, empirics, sorcerers, and magicians. Mr. Druce then traced briefly the attempts of the apothecaries to obtain penal powers over the chemists and druggists, and noted that in 1794 a Pharmaceutical Association was formed, which met at the Buffalo Tavern in Bloomsbury Square, but it was short-lived and failed to carry out its endeavours. In 1841 another attempt was made, by the "Bill to Amend the Laws relating to the Medical Profession in Great Britain and Ireland," to circumscribe the privileges of their trade, but this was defeated, and indirectly led to the foundation of the Pharmaceutical Society, which was established in that year for the purpose of protecting the permanent interests and increasing the respectability of chemists and druggists. He introduced this summary of their history to show that the Society was primarily founded as a trade-defence society, while the object of increasing the respectability of the trade and making it in some sense a profession was a secondary motive. It could not be denied that for many years the primary object was, if not lost sight of, at any rate relegated to an unobtrusive position, and education, which the passing of the Pharmacy Act rendered to some extent an obligation, became almost the one idea of the Council, who appeared to be under the impression that a bold defence of the business-rights of pharmacists was derogatory to the respectability of its members. They were grateful for the change of policy which now appeared to animate the Council, but so long as

the Pharmaceutical Society received no support from the great mass of the trade, so long must its power be limited when fighting vested interests. With the increase of members a greater pressure would be brought to bear upon their representatives in the Council, and a more forward policy would doubtless ensue. (Applause.) Mr. Druce went on to speak of

THE SYSTEM OF EXAMINATION,

and recommended to the attention of members of the trade the excellent and very comprehensive address of Sir James Crichton Browne, which contained wise words of caution against making the Minor examination too severe. He particularly welcomed the suggestion Sir James Crichton Browne made to divide the examination into two parts, and especially did he agree with the manner in which Sir James would have the subjects divided. He suggested chemistry, physics, and botany as the subjects to be taken in the first examination, and that the second, or qualifying, examination should be devoted to materia medica, pharmacy, and dispensing. Why he (Mr. Druce) so warmly agreed with this subdivision was because he held that the primary object which influenced the founders of their Society, and the view taken by the Legislature and the public, was that their examinations should be essentially for pharmacists, and that no botanist, however well read, and no chemist, however proficient, was qualified to be a chemist and druggist unless he was a competent pharmacist. (Hear, hear.) He dissented from the idea that a mere laboratory course of botany or chemistry was sufficient, and he viewed with regret the effacement, or at any rate the subordination, which pharmacy was being made to undergo in their process of examination. He was not in any way wishing to minimise the importance of the two sciences which were the foundation of a pharmacist's knowledge, but he would most certainly make them subordinate to pharmacy. This, he thought, might be better accomplished by accepting this division of the Minor examination into two parts. It was obvious, of course, that the two sciences he had mentioned were in themselves so wide and vast that only a comparatively limited knowledge of them could be acquired. This was especially true of botany, which really consisted of several sciences. He was afraid he would be considered old-fashioned when he expressed his belief that they would do well to make the teaching of these sciences as technical as possible. There were some in high authority, and whose opinion doubtless had more weight than his, who held that there was no such thing as pharmaceutical chemistry or pharmaceutical botany. He would not meet that idea with a flat contradiction, but it did appear to him possible to utilise examples having direct interest to the pharmacist. He expressed his sense of indebtedness to the two excellent manuals, compiled for the use of pharmaceutical students, in Attfield's "Chemistry" and in Bentley's "Botany," the latter of which had recently been so ably rewritten by Professor Green. He instanced the fact that a student of mineralogy, to whom chemistry was important, was taught a technical chemistry which differed widely from that needed by their own business. As far as possible, it should be chemistry as adapted to pharmacy which should prevail in schools of pharmacy. In botany he deplored the undue growth of the physiological and histological branches of the subject, and the subordinate part morphology appeared to be doomed to play, while systematic botany was almost pushed out of the syllabus. Physiological botany as a science was one of great importance, but so far as it bore upon their business it possessed no special value, so that anything more than an elementary knowledge was not needed. On the other hand, the advantages to be gained from a course of histology could scarcely be over-estimated, since the powers of observation, the dexterity of preparing sections for the microscope, the knowledge of the proper use of reagents, and the skill of the pencil to delineate the objects examined were all stimulated by such study, while the knowledge obtained might be of great assistance in the future calling of the student. He also looked upon morphology as highly necessary, since it equally cultivated the powers of observation, while to the proper study of materia medica morphology was an essential adjunct. The outlines of systematic botany should also form a part of the instruction. Not only was it necessary to obtaining an idea of the wonderful variety of plant-structure on this planet, but it

enabled them to see in what manner certain characters were found to be peculiar to certain groups, and it trained the mental faculty to appreciate that order which pervaded all creation. For other reasons, what was sometimes contemptuously called "field botany" was most highly to be recommended to the pharmacist, not only as a study, but as a recreation, the more so now as it was eliminated from the course of study of medical men. If the examination were divided as suggested, the first part would clear the so-called professional subjects, and with the knowledge thus obtained the student would under good auspices attack the remaining subjects—viz., *materia medica*, pharmacy, practical dispensing and prescription-reading. This second examination might conveniently occupy two days, as he considered three hours insufficient to comfortably examine a student in both practical pharmacy and dispensing, and he held that it should be

CONDUCTED ONLY BY QUALIFIED PHARMACISTS.

(Applause.) He would relegate, as far as possible, the calculation of intricate percentages to the examination in prescription-reading, as in that the candidate was not worried by his fellow students continually jostling him, nor by the nervous strain involved in attending to his other preparations. In adopting this course, one day would be devoted to the oral examination in pharmacy, prescription-reading, and *materia medica*. In this way the extremely high percentage of failures in the Minor examination might be reduced, as at present, although the subjects in themselves were not abnormally difficult, nor was there, he was convinced, too high a standard set for any one subject, yet the large number and wide range which these special subjects covered, compressed as they were into too small a space of time, assisted in making it a very difficult examination. He believed not only would the percentage of passes improve, but, what was even of more importance to their craft, the candidates would possess a greater practical knowledge of pharmacy, and the reproach which was not infrequently urged, and, he was afraid, not entirely without foundation—viz., that an examined man was not necessarily a better pharmacist than his unqualified neighbour—would not be heard. The way to avoid this reproach was not to hand over their qualifying examination to scientific men who had no experience of the art of pharmacy. In the Major examination he should restore pharmacy as a subject, and in place of combining *materia medica* with botany, he would give the former a distinct position.

THE KNOWLEDGE OF DRUGS,

their adulterations and qualities, was of infinitely higher importance to a pharmacist than that of botany, which, indeed, might be deleted from the final examination, or at any rate be made to occupy a subservient position as it formerly did for many years. To summarise, let them endeavour to bring back to their examinations that appreciation of technical knowledge which was to be obtained in the pharmacy rather than in the cramming-school, at the dispensing-counter not less than from text-books and manuals. (Applause)

Mr. DRUCE then proceeded to deliver his address on

THE FOREST TREES OF GREAT BRITAIN.

He gave many interesting historical and botanical facts about various trees, and explained the symbolic significance which was attached to them by the ancients. By the aid of photographs thrown on a large screen Mr. Druce described the pine of the northern heights of Scotland and elsewhere, the elm of various churches and churchyards, the cedar, of which, although not a native of this country, he showed a magnificent specimen; the ash, the willow, the oak, the beech, and the birch, and he gave illustrations of their enormous size and longevity. Among the forest trees he did not include the elder, the hawthorn, the rose, and others of the rose tribe, though he said the crab was undoubtedly a native, and should be classed with forest trees. Very fine photographs were shown of the Thames Valley and its trees, and a picture was given of a magnificent ash growing in front of Chatsworth House, the residence of the Duke of Devonshire. Mr. Druce's remarks were illustrated by many happy quotations from the poets. He specially singled out as a close observer of nature the late Poet Laureate, who, although not a botanist, observed points which had escaped the eye of the

botanist. Mr. Druce commented on the lack of representatives of the monocotyledonous plants as trees in our flora, and also of the tree-fern of Australia. We had no representative of these except in our greenhouses, which was not their proper province. The British oak and its associations he described at some length, and dwelt lovingly on the importance of this and other trees in the nation's history, its religion, and its poetry. The word Druid meant an oak tree, and from the veneration the Druids had for the oak they received their name. The lantern was worked by Mr. Jarvis, Handsworth, and Mr. Shilton.

Mr. THOMAS BARCLAY proposed a vote of thanks to Mr. Druce, and said it was a happy augury for the session that it had been so well commenced. In Birmingham they had not a number of classes for students, but they could not blame the Association for that, and he did not think they would ever be successful in the formation of classes in connection with the Association until they had an enforced curriculum. But though the Association could not provide classes, there were outside agencies. At the Municipal Technical School, for instance, there were 84 students in botany, of whom 23 were pharmaceutical students. There was a class exclusively for chemists and druggists, in connection with which there were 38 students. A good work was thus being done, because at the technical school there were excellent laboratories and excellent teachers. He had also made an inquiry as to whether botany was being taught in the higher grades of the continuation evening schools, and was very much surprised to find nothing was being done except by the ordinary reading-books provided in the classes. He thought it would be well if this subject was begun in the elementary schools, and he agreed with Mr. Druce that these technical subjects should be taken early in the course of study for their own profession. Botany was one of the most ennobling studies—it developed powers of observation and enriched the mind, and added interest to their walks abroad—therefore he hoped that under any scheme for secondary education they would have botany taught in the board-schools, and in a town like Birmingham there would be a system by which a board-school boy might go right through to the university. Mr. Barclay then went on to speak of the work of Mr. Druce, referring in particular to his book, "The Flora of Berkshire," and congratulating him on his successful municipal fight the previous week. He believed his weighty and practical words with regard to the profession would bear fruit, and lead to criticism. He agreed with Mr. Druce that the Minor examination ought to be divided, and that botany and chemistry should come first, and afterwards pharmacy and *materia medica*. He also agreed that pharmacists themselves should be the examiners. (Applause.)

Mr. ELLIS seconded the vote of thanks, which was cordially passed, and Mr. DRUCE acknowledged the compliment.

Society of Chemical Industry.

MANCHESTER SECTION.

THE opening meeting of the present session of the Manchester Section of the Society of Chemical Industry was held at the Victoria Hotel on Friday evening, November 4. Dr. D. Watson occupied the chair, and delivered an address on "The Present Position of Metallurgy." Dr. WATSON said there had been an enormous increase in the production of all metals during the last twenty-five years. New uses had been found for metals. The electrician demanded more copper, and in the steel-trade there was an increased call for nickel and aluminium. The latter metal twenty-five years ago was a curiosity; now it is a necessity. Then it could not be produced for less than 40s. per lb.; the price now paid for it is less than 1s. 6d. per lb. Nickel now costs about as many pence per lb. as twenty-five years ago it cost shillings. In the construction of ships, railways, machinery, buildings, conduits for gas and water, more metals were being steadily brought into requisition. The metallurgist was primarily the servant of the miner. The lecturer dealt with the processes employed in the treatment of ores of all the principal metals, and said that, contrary to expectation, no metals were now being extracted direct from the ores by means of electricity, although electricity was much employed in metallurgy. It was the business of the metallurgist to refine and combine metals to meet the requirements of the

constructor, and metallurgists were encouraged to compete with one another in providing for the engineer something better than he had been able to obtain previously. Metallurgy was active and progressive both as an art and as a science, and chemists might with confidence expect that the first few years of the coming century would bring the full elucidation of the chemistry of metals.

Irish Pharmacists' Association.

THE third annual opening meeting of this Association was held at 67 Lower Mount Street, Dublin, on November 4. Mr. Henry Hunt, M.P.S.I., President, in the chair. There was a large attendance.

After the election of eight new members, the SECRETARY read extracts from the minutes of a committee-meeting held on the previous Tuesday, at which it was decided to establish an employment agency in connection with the Association, and to hold a concert early in December.

Mr. WILLIAMS rose to a point of order. It was not usual to discuss committee business at a general meeting unless as a recommendation from the committee.

The PRESIDENT said on this occasion it was decided to acquaint the members with what had been done, and get their opinion.

THE PRESIDENT'S ADDRESS.

Mr. HUNT then delivered the presidential address. He traced the progress of the Association from its inception three years ago to the present time, and alluded to the many interesting functions held under its auspices. The financial position of the Association was sound, and it was well supported by employers and assistants. Alluding to the new B.P., he said it provided a wide field for discussion, and he hoped many members would contribute papers upon it. The volume was more readable than its predecessor. The processes for many of the galenicals were essentially for the wholesale manufacturers, and it would not pay the ordinary pharmacist to undertake their manufacture on the same scale. If succeeding issues of the B.P. continued upon the same lines the old-fashioned pharmacist who made his own tinctures, liquors, &c., would become extinct, and his plaster spatulas would be relegated to a museum. The new B.P. had upset some of the most cherished theories of the conscientious chemist. Concentrated infusions had been looked upon as an abomination. The tests now given were more exhaustive and accurate than former ones, and it would be necessary for the chemist, instead of manufacturing his own galenicals, to make more elaborate arrangements for testing his own drugs.

Pharmaceutical history also had been enriched this year by legislation successful and otherwise. Referring to the Poisons Bill, he claimed that the reputation of Irishmen as combatants in the political arena had been fully upheld in the opposition to this Bill.

He did not intend to allude to company-pharmacy, beyond asking qualified assistants to remember that they were essential to the company-promoters, and should place a proper price upon their services.

He was glad the committee were establishing an employment agency. They could not attempt anything ambitious, but he thought a register of vacancies kept by the Secretary would be of use to assistants and employers.

A discussion followed the President's address, turning partly on the proposed employment agency, and partly on a suggestion that the Association should have an office and a room of its own, not for its meetings, but where letters could be received and where members could meet for business. Mr. H. Conyngham, who was present, asked what the rent of such a room would be, and being informed that it would be 20*l.* a year, offered to guarantee half the amount. He also warmly approved the proposal of an employment agency. Mr. Councillor KELLY, Mr. JAMES, Mr. WILLIAMS, Mr. SAVAGE, and Mr. ASHE took part in the discussion, and warm appreciation of Mr. Conyngham's generosity was expressed.

It was decided to inspect a number of rooms in the vicinity of Trinity College, and Messrs. McCarthy and Savage were appointed a sub-committee for that purpose. The preparation of a syllabus for the ensuing session was proceeded with, and the following arrangements were

authorised provisionally:—November 18, impromptu discussions; December 2, debate; December 9, concert in X.L. Café; December 16, open night. A concert committee, consisting of Messrs. Turner and Williams, was appointed, the President and other officers to act as *ex-officio* members.

Chemists' and Druggists' Society of Ireland (NORTHERN BRANCH.)

A GENERAL MEETING of the members of the above Society was held on November 7 to discuss: (1) How the trade will be affected by the recent interpretation of the Pharmacy Acts at Belfast; (2) if advisable for druggists to qualify as Associates of the Pharmaceutical Society of Ireland; and (3) the P.A.T.A.

Sir JAMES HASLETT, M.P., presided, and, referring to the first item on the agenda, said he did not think the decisions affected the druggists in the slightest degree, or that any other course was open to the Magistrates but to record a conviction in each case. The law on the question was perfectly clear, and had been often laid down—viz., "that a shop cannot be run within a shop." He was of opinion, therefore, that the points of law discussed in the recent cases did not come into conflict with the interests of those identified with that Society.

After a prolonged discussion it was ultimately agreed that no action should be taken in the meantime, especially as no prosecutions had been instituted against any of the employés of chemists and druggists, several members expressing the opinion that the recent cases did not indicate, on the part of the Pharmaceutical Society, a disposition to harass the drug-trade.

With reference to the second question, some of those present advocated druggists qualifying as associates, with the view of obtaining representation on the Council of that body. It was finally decided to postpone further consideration until the Secretary could obtain information whether the Pharmaceutical Society would admit their members on the Council in proportion to the number of druggists qualifying. As to the P.A.T.A., letters were read by the Hon. Secretary from Mr. Glyn-Jones dealing with the proposed defence fund. It was the opinion of the meeting that the idea had not sufficiently matured, and that the committee in charge had not had the necessary statistical calculations based upon experience to enable them to fix a percentage to be charged. It was decided to leave the matter over for the present. Regarding the general work of the P.A.T.A., an interesting discussion took place; and on the motion of Mr. W. SHAW the following resolution was unanimously adopted:—

That this Society recognises the good work done by the P.A.T.A., which, in our opinion, has up to the present been highly satisfactory. We, therefore, urge upon those manufacturers who have not already placed their goods upon the list to do so without further delay.

On the motion of Mr. JAMESON, a vote of condolence was adopted and ordered to be forwarded to the families of two recently-deceased members—Mr. J. K. Miskelly, Belfast, and Mr. A. McBriner, Gilford.

Leicester Chemists' Social Union.

THE session of this Association was opened by a supper at the Clarendon Rooms on November 3. The company numbered twenty-five, and the chair was occupied by Mr. T. Howard Lloyd. Mr. E. H. Butler was Vice-Chairman. After a happy speech by the CHAIRMAN, and valuable suggestions for the conduct of the session from Messrs. BURFORD and THIELBY, a concert was given, which was much appreciated. Messrs. Audley, Butler, F. Goodess, Beale, Davis, Gough, and J. Cleaver gave songs, Messrs. Thirlby and E. Goodess contributed recitations, Mr. Tippetts gave a mandolin solo, and Mr. Gough accompanied on the piano.

Liverpool Pharmaceutical Students' Society.

THE members of this Society, with their friends, numbering in all about eighty, assembled at the Kardomah Café on November 3, for the first "smoker" of the session. Mr. R. C. Cowley presided, and an excellent programme of song, reci-

tation, and instrumental music was rendered by Messrs. Herbert Lowe, Bickerton Hughes, Stevenson, Nicholson, Harrod, Sutton, Cooke, Shacklady, Rousell, Bennington, Dr. John Watson, Percy Stone, and Mr. W. Tinsley. Messrs. Hall and Oxford accompanied. Mr. Cooke during the evening caused much amusement by singing an adapted version of "Druggy Druggy Harry," the text of which appeared in the *C. & D.* some time ago.

Manchester Pharmaceutical Association.

THE second meeting of the session was held at the Victoria Hotel on Wednesday evening. The President, Mr. G. S. Woolley, occupied the chair, and there was a good attendance. With several new members who were elected, Mr. Walter Gibbons was re-elected a member of the Society.

Mr. J. H. HOSEASON read a paper on "Standardisation Processes of the B.P.," but the reading of a paper on "Vegetable Materia Medica of the B.P.," by Mr. W. Kirkby, F.L.S., was postponed.

Mr. J. GRIER read a paper on "The Pharmacy of the B.P.," followed by a joint discussion on the two papers which had been given.

Arbroath Chemists' Assistants' and Apprentices' Association.

THE winter session was opened on November 1 by a well-attended meeting, Mr. F. Bennett in the chair, at which Mr. Naysmith, chemist, delivered an address on "Pharmacy, Past and Present," in the course of which he offered valuable advice to the members. His address was much appreciated.

Chemists' Assistants' Association.

AT a meeting held on November 3, devoted to short papers. Mr. F. W. Gamble (the President) occupied the chair. All the papers read were by Mr. HAROLD E. MATTHEWS, the Hon. Secretary. The first paper was on

PULV. RHEI CO.

He said there is difference of opinion as to the best method of preparing Gregory's powder, various authorities stating that its miscibility with water is affected by the degree of pressure to which it is subjected in mixing; some assert that considerable trituration of the powders results in a preparation that readily mixes with water; while others maintain that such a preparation is only obtained by lightly stirring the ingredients together with a knife. To clear up the matter, experiments were made with three quantities of powder, prepared as follows:—No. 1, by trituration with heavy pressure; No. 2, by trituration with light pressure; No. 3, by lightly mixing on paper with a knife. A portion of each of these was then mixed with water, with the result that no difference in degree of miscibility could be detected.

The next two were on "A Method of Separating Magnesium and Lithium" and on "The Identification of Soluble Ferricyanide, Ferrocyanide, and Cyanide when Mixed together."

Referring to the subject of Gregory's powder, the PRESIDENT said he had heard the opinion expressed that the age of the powder had something to do with its miscibility, the fresh preparation being alleged to mix with water more readily than the older, but he questioned the statement.

Mr. T. MORLEY TAYLOR thought that it did not matter how the powder was mixed, seeing that it is subsequently sifted.

The members then discussed various topics suggested by question-slips.

Mr. ROE, replying to the question, "Is it advantageous for a chemist's assistant to have some knowledge of drug-store business methods?" said a chemist's assistant might, in a store, learn how to put up and display preparations to the best advantage in a drug-store, but thought he would not gain much pharmaceutical knowledge.

Mr. PEARSON put down business system and stock keeping and taking as the points to be learnt in a store.

Replying to the question, "How will the increased knowledge of preventive medicine affect pharmacy, and what

difference will it make to the pharmacist?" Mr. T. M. TAYLOR thought its first influence on pharmacy would be the introduction of new medicines, and that it would tend to force the pharmacist to add bacteriology to his present studies.

Mr. FOTHERGILL said "Yes," replying to the question, "Is pharmacy worth going in for?" He was not quite so laconic as that, and his reply gave rise to a discussion which the PRESIDENT had to cut short, as time was up.

Chemical Society.

THERE was a large attendance of Fellows at the first meeting of the session on November 3, when Professor Dewar, the President, took the chair. After the usual preliminaries,—admission of Fellows and reading of certificates—the PRESIDENT rose, and referred to the loss the Society had sustained in the death of the late Mr. T. A. R. Newlands. After referring to his personal qualities, and to his perseverance in the face of early non-recognition, he added that his name would always be associated with the progress of chemical thought in our time, and, happily, he had lived to witness the expansion of the idea contained in his law of octaves into one of the most comprehensive developments of modern chemical theory. As a tribute to his memory, it was hoped that an enlarged portrait of Mr. Newlands would be hung in the Society's rooms.

The first paper on the list was by Mr. George Dean B.A. on the

DETERMINATION OF THE EQUIVALENT OF CYANOGEN.

The paper was read by Dr. SCOTT, Superintendent of the Davy-Faraday Laboratory, who had seen a great part of the research at Cambridge. It formed part of a series of independent determinations of chemical constants now going on. The different values found for the atomic weight of nitrogen led to an attempt to deduce it from the equivalent of cyanogen, determined from the value of a known quantity of dry silver cyanide, titrated with potassium bromide. The result showed that $CN = 26.065$, and if $C = 12.01$, $N = 14.055$.

Professor DEWAR, in commenting on the value of this kind of work, referred to some researches of his own on the equivalent of tri-ethylamine in 1883, which pointed out the possibility of obtaining the atomic weight of carbon without using a combustion method. He pointed out the difference between the results obtained by Lord Rayleigh and those of Mr. Dean, and expressed the hope for further research in the matter. The next four papers were read by Professor SYDNEY YOUNG, F.R.S. They were in continuation of his previous work on the hydrocarbons of

AMERICAN PETROLEUM.

The first was on "The Composition of American Petroleum." In the petroleum boiling between 25° C. and 115° C. he found isopentane, isohexane, hexane, methylpentamethylene, benzene, hexamethylene, isoheptane, heptane, methylhexamethylene, and toluene. The relative amount of naphthenes and aromatic hydrocarbons is greatest in Russian and least in American petroleum. In the third paper Dr. Jackson and Professor Young reported: The benzene in petroleum comes over at 65° C., and that pure benzene can be prepared from a mixture containing a little hexane, but pure hexane cannot be obtained. The fourth paper dealt with the action of fuming nitric acid on the paraffins and other hydrocarbons. This dealt with hexane and isohexane derivatives.

In answer to a question, Professor YOUNG said that a very small quantity of olefines could be present. In reply to Mr. Davis, who referred to Worstall's statement that normal hexane yields a primary nitro-derivative when treated with fuming nitric acid, he said that the iso-paraffins were so much more readily attacked that under the conditions he described he had found hardly any traces of a normal nitro-derivative.

Mr. W. J. POPE followed with a short account of

A COMPOSITE SODIUM-CHLORATE CRYSTAL,

in which the twin law is not followed. It consisted of a cube-shaped crystal growing on to a tabular one, both crystals showing the form {100}; a three-fold axis of symmetry of the one coincides in direction with a four-fold axis of symmetry of the other, and the plane (011) on the

former is parallel to the plane (010) on the latter. The composite crystal is thus not developed in accordance with the ordinary twin law, and yet the two crystalline individuals have grown together in a highly symmetrical manner.

The next two papers were on camphor, and the moths of the Society, who had up to this point remained at their post, flew away to the tea-room. Of the remaining papers that on

THE NUTRITION OF YEAST,

by Dr. Arthur L. Stern, D.Sc., contained points of interest. In this it was shown that sulphur is an essential constituent of yeast-nutrient, which it can obtain from sulphates with evolution of SH_2 . Iron is not essential, and any increase of nutrient beyond a definite limit will not materially increase the amount of nitrogen assimilated by the yeast, the percentage of nitrogen in the yeast, the weight of the yeast, or the amount of sugar fermented. This limit, called the normal supply, is the largest quantity that the yeast can assimilate under the conditions employed in the experiments, and is approximately 0.025 gramme per 100 c.c. of inorganic nutrient, and the same weight of nitrogen supplied as asparagine.

Messrs. Wood, Spivey, and Easterfield communicated a further paper on

CANNABINOL.

This sums up previous communications, and elucidates some points in the composition of oxycannabin derivatives. The volatile fatty acids produced on oxidising cannabinol by nitric acid are normal butyric (Dunstan and Henry), normal valeric, and normal caproic acids, valeric acid being formed in the largest amount.

Pharmaceutical Society of Great Britain.

EVENING MEETING.

THE Pharmaceutical Society's winter session opened on Tuesday evening with a lecture and demonstration by Professor William Ramsay, D.Sc., F.R.S., on

THE NEW GASES OF THE ATMOSPHERE.

Dr. Travers was also present.

When the President took the chair at 8 o'clock the lecture-theatre was completely filled. This was due partly to members of the public attracted by matters of such general interest. The lecture, which lasted an hour and a quarter, was delivered *extempore*, and received the closest attention throughout. Much of it was ancient history, but its charm lay chiefly in the fact that from the time of Boyle to the present day every important step in the investigation was reviewed by the man whose good fortune it has been to discover the greatest number of known atmospheric elements.

At the commencement, Professor RAMSAY alluded to the fact that Britons had always been closely connected with investigations into the composition of the atmosphere. He preferred to speak of Britons because he himself was a Scotchman. Going back to early history, he showed how Robert Boyle was the first to investigate the subject. Next came John Mayo, who anticipated Lavoisier's discovery of the rôle played by the oxygen of the atmosphere in the combustion of phosphorus, nitrogen, carbon, and other elements. He called it the "fiery, airy spirit." Nitrogen was isolated, and called "mephitic air" by Rutherford, who set himself to examine the residue left after burning substances in air and absorbing the carbon dioxide by means of lime. The discovery of oxygen, due in the first place to Scheele, was made two or three years earlier than that of nitrogen. Scheele, in 1770, heated various substances, among them being red lead, black oxide of manganese, arsenic acid, and potassium nitrate. He obtained a gas which supported combustion more than did the atmosphere. Owing to difficulty in finding a publisher for the volume, which was to give the results of his researches, Scheele's discovery was not announced to the world until after Priestley's well-known preparation of oxygen from red

mercuric oxide in 1774. Hence, while Scheele anticipated Priestley in discovering the element, the latter was beforehand with Scheele in making known his achievement. Carbon dioxide was discovered by Professor Black about twenty years earlier; thus three of the constituents of atmospheric air were determined within a period of twenty years. Cavendish's quantitative experiments into the nature of atmospheric nitrogen form the next important point in the story. He mixed nitrogen or air with excess of oxygen in a U-tube over mercury, passed sparks from an electric machine through the mixture, and absorbed the oxides of nitrogen by caustic soda, thus forming sodium nitrate and nitrite. In order to effect this the handle of the machine must have been turned for at least a fortnight. (Laughter.) A small quantity of gas, representing from $\frac{1}{135}$ to $\frac{1}{120}$ of the original volume of nitrogen, remained, and it puzzled Cavendish to account for its presence. All he could say was that, "if any portion of

MEPHITIC GAS

(nitrogen) remained it did not represent more than $\frac{1}{135}$ to $\frac{1}{120}$ of the whole." The story here advances with a bound to about the year 1893 before any striking advancement is observed. Lord Rayleigh was then experimenting on the relative densities of the principal known gases in order to arrive at their atomic weights. Early in the year 1894 he wrote to *Nature*, concerning an anomaly which had come under his notice—viz., that, whereas atmospheric nitrogen is a little more than fourteen times the weight of hydrogen, yet nitrogen obtained from ammonia, nitrates, or other nitrogenous compounds, is a little lighter, the difference being about one part in 230. There was no reply, but Lord Rayleigh's personal friends, Professor Ramsay among them, discussed the subject in private, and at the Royal Society's meeting, and at Professor Ramsay's suggestion, his Lordship adopted a new method for the preparation of pure nitrogen by passing air and ammonia gas over red-hot copper, with formation of water and nitrogen. Professor Ramsay then hinted that atmospheric nitrogen was not what hitherto it had been thought to be, and pointed out the results of Cavendish's experiments, but Lord Rayleigh could not give credence to this theory, and considered it too far-reaching. He was inclined to the view that the density of nitrogen differed with the compounds from which it was obtained. He therefore did not follow up the clue by endeavouring to find whether or not atmospheric nitrogen contained another gas. This, however, was done with his consent by Professor Ramsay and Mr. Percy Williams. Metallic magnesium presented itself as a suitable absorbent of nitrogen, because when magnesium is heated in a closed crucible and breathed upon, ammonia is formed, owing to decomposition of magnesium nitride by water. The turnings were heated for several days in contact with a measured volume of nitrogen, and the gas was removed from time to time by means of a pump, and weighed. The first day the gas was found to gain in weight, becoming 14.8 times as heavy as hydrogen, the next day acquiring a density of 16, and so on, until on working with larger quantities a gas was obtained having a density of (nearly) 19. For some time Professor Ramsay worked single-handed, and at the end of the session, owing to a crack in the apparatus, the 100 c.c. of the heavier gas which had been obtained were lost. The results of these experiments were made known to Lord Rayleigh, and publicly announced at Oxford on August 18, 1894. Meanwhile, Lord Rayleigh had come to the conclusion, after most accurate experimentation, that the density of the nitrogen obtained from urea was the same as that from ammonia. He repeated

CAVENDISH'S EXPERIMENT,

using more modern and more perfect apparatus, and obtained a bubble of gas which would not combine with oxygen at the end of prolonged exposure to the electric spark. The spectrum, which was not striking, showed the presence of green lines. Its density, however, differed from that of nitrogen, being heavier. It represented about 1 per cent. of the nitrogen in the atmosphere, or about 0.8 per cent. of the atmosphere itself. Hence it is far more plentiful than carbon dioxide, which is present to the extent of about 4 parts in 10,000. The gas was found to resist combination

with everything; it was passed over every known element, and as a result the name "argon" was chosen for it, signifying "inert." Nor was this result surprising considering the drastic treatment to which even its preparation had subjected it, including the highly-oxidising action of oxygen in presence of electric sparks, and exposure to magnesium at a high temperature, by which treatment many elements (*e.g.*, phosphorus) form compounds. It thus appeared to be at once the most electropositive and the most electronegative element known. On January 31, 1895, an account of these experiments was laid before the Royal Society, and next morning Professor Ramsay's attention was drawn to the extraction of nitrogen from cleveite and other rare substances found in Massachusetts, Norway, and other parts by Hillebrand. A supply of cleveite was obtained, and the gas extracted from it by boiling with dilute sulphuric acid. In this way it was mixed largely with air, and it was found better to heat the mineral either alone or with sodium acid sulphate. The spectrum of the gas was examined in March, and a single bright yellow line was noticed which did not coincide with either of the sodium lines. The gas turned out to be helium, the wave-length of the yellow line being identical with that found in a gas hitherto only found in the sun's chromosphere, and measured by Professors Norman Lockyer and Frankland. After purifying samples of argon and helium, their densities were determined, and found to be 1.99 and a little less than 2, respectively. Determination of their specific heats led to the conclusion that they are monatomic elements, and would have the molecular weights 40 and 4, respectively, these being identical with their atomic weights. It was at this point that the periodic classification came into play; placing helium with an atomic weight 4 at the top of the eighth column, and argon (40) below it, and following chlorine, there remain gaps—*viz.*, one between fluorine and sodium, for an element with an atomic weight 20, and one after bromine, with an atomic weight of about 82. A search was therefore made, in the first place, for an element having an atomic weight 20. Helium being supposed to be a mixture, Dr. Collie devoted the best part of a summer to the separation of argon and helium. (Applause.) The experiment was performed by means of a tobacco-pipe stem, sealed at one end, immersed in the gas, and rendered partly vacuous.

PROGRESS WAS, HOWEVER, SLOW,

and in the end the densities of the two portions were 1.98 and 2.02—not a satisfactory result. The gas was certainly divided to some extent into two portions, but the spectra were alike. Later, in conjunction with Dr. Travers, Professor Ramsay extended these diffusion experiments on a larger scale, and as a result obtained a heavier portion of diffused gas containing little argon. It then occurred to the investigators that a quantity of liquid air might yield interesting results. Seven hundred and fifty c.c. of liquid air supplied by Dr. Hampson were boiled away, and the first and last fractions collected in the gaseous form. The nitrogen, oxygen, and the greater part of the argon were thus got rid of, and the last fraction was a new gas, mixed with a certain amount of nitrogen, oxygen, and argon. It showed two very brilliant yellow lines, as well as two green lines, and received the name "krypton." This proved to be the heavier element sought for. A quantity of argon was next liquefied and boiled off in fractions, the first and last fractions being collected. The gas first collected gave a characteristic spectrum, and received the name "neon," meaning "the new one." (Laughter.) Its density proved to be about 0.976, but further purifications will, it is hoped, establish beyond doubt its claim to be considered the missing link in the periodic table, with an atomic weight of 20. One of its adulterants was helium, which was proved by the fact that its spectrum showed the yellow line characteristic of helium. The difficulty of separating two uncondensable gases can only be solved by fractionally distilling them; at present the density of the impure neon hovers round the number 10, being more or less, according as portions of argon and helium respectively are removed. In the liquefaction of argon a solid substance separated which was given the name meta-argon, and last of all the new gas, xenon, was found, and was doubtless appropriately named "the

stranger." It is just possible that further investigations will lead to the discovery of yet another elementary constituent of the atmosphere, which should occupy a gap between indium and cesium. It will probably prove to be a liquid, but at present it is hard to know in what direction to look for it with success.

Having thus briefly described the methods employed in these interesting discoveries, Professor Ramsay remarked that though, when considered from a commercial, or even from a pharmaceutical point of view, the discovery of these elements was unimportant, yet they were of great interest and value to all scientific men, in that they almost completed the tale of the elements. The fact that no compound of argon had yet been discovered led to the conclusion that no such compound ever will be known. The carbon dioxide of the atmosphere was represented in combination with lime by whole mountain ranges, and it is highly improbable that any compound of argon, if it does exist, can exist in smaller proportions, since it is more abundant in the atmosphere than carbon dioxide. At any rate, if of no other use, these elements had helped to put in order the ideas of the chemist.

The PRESIDENT then drew attention to the appreciation as signified by the frequent hearty applause with which the lecture had been received, and stated that pharmacists were deeply interested in the progress that was being made in every department of science. He called for a vote of thanks to Professor Ramsay and Dr. Travers, and this was carried amid enthusiastic applause. The audience was then invited either to partake of refreshments or examine the spectra of the new gases, or both.

The Chemists' Assistants' Union.

MR. W. J. LLOYD ROBERTS, Hon. Secretary of the Formation Committee of the above, sends us the following draft of the proposed policy of the Union:—

1. To combine against the unjust system of unqualified company-trading; to do our utmost to secure the co-operation of our fellow-assistants.
2. To avail ourselves of the privileges given to qualified assistants by the Pharmacy Act Amendments Bill, 1898, and by combination to secure direct representation on the Council of the Pharmaceutical Society.
3. To establish in London an institution or club, to be the headquarters of the Union, where members can meet for social or business purposes, and where provincial members can apply for information, &c.
4. To establish at the headquarters an engagements register, with the object of facilitating the securing of worthy employment and employes.
5. To strengthen the parent society by our combined support to the suppression of illegal competition and trading.
6. To appoint at every large centre a local secretary, and so establish branches of the Union in touch with the London headquarters.
7. To consider, and, if practicable, to form a mutual benefit institution, with the object of providing aid in sickness.
8. To bring what weight we may possess to bear on Members of Parliament for the extension of the power of the Society in the protection of our calling.
9. To promote good fellowship in a hitherto alienated body of workers, and to seize all opportunities for the promotion of our welfare.
10. To secure by the above policy a healthier condition both financially and socially of the employer, and thereby ensure to assistants a remuneration and hours of labour consistent with the higher educational training of the present.

Mr. Roberts, who writes from the temporary headquarters at the Horse Shoe Hotel, Tottenham Court Road, informs us further that his committee have decided that the Union shall be composed of those only who have served an apprenticeship with, and are employed by, a registered chemist. And as a further check against unsatisfactory membership, the Council have the power to refuse any application from an assistant whose business-principles are detrimental to the interest of the calling. He further states that the Rule 19 now reads "shall not," instead of "is recommended not to," sell his services to improperly-constructed companies.

Personalities.

MR. SAMUEL JONES, chemist, High Street, Holywell, has been elected a member of the School Board.

MR. D. M. SMITH, chemist, Comely Bank Place, Edinburgh, has retired from business owing to failing health.

MR. R. W. WALDEN, chemist, of 65 Elizabeth Street, Eaton Square, S.W., has been elected by the Vestry of St. George, Hanover Square, a commissioner for public libraries, in place of the Duke of Westminster, who has retired.

MR. D. B. ANDERSON, Dunfermline, has obtained the 25*l.* science bursary in connection with the Stirling Science and Art evening classes. Mr. Anderson served his apprenticeship with Mr. J. A. Scott, chemist, Dunfermline, and is now continuing his studies at the Edinburgh Royal Dispensary.

MR. HARTLEY, once prominent in the drug-trade as the original Sequah, is now a figure in the mining world. A committee of shareholders of the Great Boulder Proprietary Gold-mines is trying to get certain agreements relating to some process in the industry, entered into with Messrs. Küneman and Hartley, rescinded.

A GOLD LEVER WATCH and illuminated address were presented to Mr. Herbert Townsend, son of the principal in the firm of James Townsend & Son, chemists' printers, Exeter, who attained his majority on the previous day. Mr. F. S. Crouch, the oldest employé in the firm, made the presentation on behalf of the staff.

SIR JOHN VOCE MOORE, the new Lord Mayor of London, is a leading member of a well-known firm of tea-merchants. Sir John Moore has rendered conspicuous services in connection with food-adulteration. Through his influence the clauses of the Food and Drugs Act of 1875, restricting the action of public analysts in respect of tea to the officially appointed chemists of her Majesty's Customs, were inserted, and his agitation on the same subject resulted in the destruction by the Medical Officer of Health of more than 40,000 lbs. of adulterated tea at one time, and secured the appointment of a Custom House analyst, whose special duty is to inspect all teas imported into this country.

MUNICIPAL ELECTIONS.—The following chemists, in addition to those mentioned last week, have been elected on Municipal Councils:—

Mr. Wm. Price, Birmingham.

Mr. Geo. Strawson, Bishop's Castle (re-elected).

Mr. Richard J. Cardell, Bodmin.

Mr. Hutchinson, analytical chemist, Bury.

Mr. Andrew Thompson, Carlisle (re-elected).

Mr. John Green, Christchurch (re-elected).

Mr. Upson, Maidenhead.

Mr. Geo. Claridge Druce, Oxford (re-elected).

Mr. Thomas John Roberts, Ruthin.

Mr. J. G. Mellor, Warwick (re-elected).

Mr. Samborne Cook, chemist, Hyson Green, has been unsuccessful in his attempt to retain his seat on the Nottingham City Council. He was defeated by five votes.

In last week's issue we stated that Messrs. J. G. Agar and P. J. Shacklock were returned unopposed. Mr. Shacklock writes to tell us that this is incorrect, as both he and Mr. Agar (neither of whom had stood before) were elected after a stiff fight.

ON Tuesday evening Mr. F. N. Martinez, who has just returned from South and Central America and West Indies as the representative of a score of firms whose cards surround his portrait on the menu-card, was entertained by his principals to dinner at the Hotel Cecil. The company included Sir J. Heron-Maxwell, Bart., Mr. J. Lowles, M.P., and Mr. J. H. Dalziel, M.P., and was presided over by Mr. T. R. Dewar, ex-Sheriff of London. Mr. J. L. Grossmith (J. Grossmith & Son, Newgate Street) and Mr. G. Harold Kent (G. B. Kent & Sons) occupied the Vice-Chairs. As the Chairman remarked in proposing the health of the guest of the evening, it was a unique gathering for a unique man, and he spoke of Mr. Martinez's remarkable success in pushing trade in the Western hemisphere during the past three years. Mr. Martinez, in his reply, mentioned that Mr. Worthington, who went out to South America to

investigate the markets there on behalf of the Board of Trade, had told him that ignorance of Spanish on the part of English travellers in South America was one of the chief reasons why British firms did not make the progress there that continental firms do. He also referred to the great future there is for trade in the West Indies, and mentioned that it is his intention to reside during the next two years in Barbados, in order to further the interests of the firms he represents. He believes the trade of the West Indies ought to be equal to that of South Africa or of Australia, as the population is greater, and with encouragement from the home Government the trade should develop enormously. Following the excellent yet modest speech from Mr. Martinez came a series of orations from other invited guests. Mr. Lowles, M.P., in giving the toast of "Commerce," referred to the encroachment upon British trade by Germans, and regretted that our imports from the United States were 90,000,000*l.* a year, and our exports to that country only 30,000,000*l.* He thought that it should be the other way about. Mr. Arthur B. Kent, in responding to the toast, questioned the soundness of Mr. Lowles' logic, saying that it was not bad for us that we could get 90,000,000*l.* worth of American goods for 30,000,000*l.* of our own manufactures. Independent of that, Mr. Kent's speech showed a firm grasp of the directions in which British trade has suffered or is developing, and he stated plainly that there is no fear for the future if business men who have done well keep their sons at the business. Sir J. Heron-Maxwell toasted "The Press," to which Mr. J. H. Dalziel, M.P., replied in a plea for greater attention by British houses to South American markets. It was eleven before the company separated, and all expressed high pleasure at the pleasant and profitable nature of the evening.

Wills of Deceased Chemists.

BAYLY.—The will of Mr. Chas. Jasper Bayly, chemist, Waltham Cross, Herts, who died on July 7, 1898, has been proved by his widow and sole executrix, Mrs. Jane Elizabeth Bayly. The testator's estate was sworn at 3,065*l.* 0*s.* 6*d.*, of which 2,178*l.* 1*s.* is net personality.

BENNISON.—The will of the late Mr. Richard Bennison, chemist and druggist, North Ormesby, Middlesbrough, has been proved by Mrs. Hannah Bennison, the widow, and Mr. R. Smart Pardy and Mr. Philip, the executors of the testator, whose personality was sworn at 592*l.*

BULCOCK.—The will of the late Mr. Henry Bulcock, chemist and druggist, Clitheroe, has been proved by Mrs. Dorothy Bulcock, the widow, and Mr. W. H. Bulcock, the executors of the testator, whose personality was sworn at 1,343*l.* 5*s.* 9*d.*

GIBBS.—The will of Mr. D. A. Gibbs, of the firm of D. & W. Gibbs, soapmakers, who died on July 7, 1898, has been proved by his sons, Messrs. D. C. and F. L. A. Gibbs, both of 16 Finsbury Circus, by whom the testator's estate was sworn at 77,918*l.* 10*s.* 3*d.*, of which 66,930*l.* 7*s.* 7*d.* is net personality.

LAEN.—The will of the late Mr. William Laen, chemist and druggist, 1 Meyrick Street, Pembroke Dock, has been proved in London by Mrs. Susanna Laen, the widow, Mr. Richard Harwood and Mr. H. A. Jones Lloyd, the executors of the testator, whose personality was sworn at 7,237*l.* 11*s.*

LAMBERT.—The late Mr. Thomas Lambert, chemist and druggist, Huddersfield Road, Oldham, having died intestate, letters of administration to his estate have been granted to his widow, Mrs. Eliza Lambert, by whom the deceased's personality was sworn at 948*l.*

WHITAKER.—The will of Mr. Thomas Whitaker, chemist and druggist, 16 Brierley Avenue, Higher Ardwick, who died on September 8, 1898, has been proved by Mr. W. B. Sweetman, 5 Ranelagh Street, Liverpool, surviving executor of the testator, whose estate was sworn at 7,625*l.* 11*s.* 3*d.*, of which 7,604*l.* 10*s.* 3*d.* is net personality.

WOOD.—The will of the late Mr. James Wood, chemist and druggist, 4 Goodramgate, York, has been proved by Mrs. Ann Mary Wood, widow and sole executrix of the testator, whose personality was sworn at 142*l.* 7*s.*

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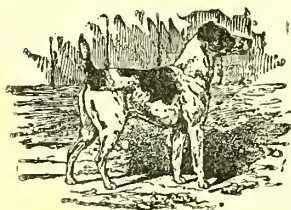
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Editorial Comments.

Local Associations and Trade Topics.

LOCAL associations of chemists and druggists are gradually drifting, it would appear, into the character of trade unions. It is not so long ago in most of them that scientific papers were provided with unfailing regularity once a month. Good original work was occasionally produced at these meetings; but in the majority of cases the lecturer merely read up a subject and gave his fellow members the benefit of his study. Very useful, too, this system proved itself, especially to the lecturer; but of late years it has grown less in favour with audiences. Just as popular scientific lectures and the once famous mechanics' institutions have been deposed by cricket, football, and variety entertainments, so have pharmaceutical associations been affected by similar invasions. It does not follow that less interest is taken nowadays in the acquire

ment of knowledge; it simply means that instruction is sought in other quarters. Many associations believed some years ago that they had found their true mission in the establishment of educational classes. Some of our best provincial pharmacists pursued this object with almost passionate earnestness. But in very few cases have those for whom the classes were intended shown anything like sufficient appreciation of the benefits offered. Meanwhile, the social functions of local associations have developed enormously. The number of balls, dinners, picnics, and smoking-concerts that we report must astonish the old-fashioned chemist, if such an one still exists, and if he condescends to pay attention to such frivolous proceedings. But still more striking is the comparatively recent disposition to use these organisations for the purposes. Birmingham, Edinburgh, Dublin, Liverpool, Plymouth, and other places have now regularly organised trade committees, while thirty or forty other towns have, either by affiliation with the P.A.T.A. or independently, done some work in the trade interest of their members. We reported last week that Manchester had fallen into line; Dewsbury chemists have attracted the attention of their brethren throughout the kingdom by their lively controversy on the respective merits of 10 or 25 per cent. profit on Beecham's pills; and this week we publish a very interesting pronouncement from Mr. Druce, who, though one of the most intellectual of our modern pharmaceutical chemists, declares himself strongly in support of the demand occasionally heard for a more active trade unionism on the part of the Pharmaceutical Society. It is interesting news that a change of policy in this direction now appears to animate the Council.

The principal difficulty in utilising this trade-union tendency seems to be that of discovering objects of sufficient importance to agitate for. Simultaneous and well-directed attacks from fifty chemists' associations all over the country must have considerable influence on those proprietors of medicinal specialties who wish to do business through pharmacists. Proceedings of this character, as we all know, have been adopted with a certain amount of success. In some places slight savings have been effected in regard to carriage of parcels and combined buying. Here and there the services of a competent solicitor have been engaged to advise or defend members in matters of trade concern, but we have not heard of any important results following such appointments. Once hopeful attempts to establish uniform price-lists have been defeated by the invasion of the great cutting stores. The price-list, however, still serves a purpose, and confidential communications between members may often save a bad debt or in other ways promote mutual interest. These are specimens of the ways in which chemists can utilise each other in association for business-purposes. No one of the benefits is great in itself, but in the aggregate a fair amount of advantage may be secured.

Many methods of advancing mutual interests will no doubt occur to members when it has once become a habit to regard the local association as a trade union. Manchester chemists, we note, have some plans up their sleeves, for we had to announce that "several resolutions, which it is not desired to make public, were passed." This looks very trade-uniony.

The scheme which many contemplate of bringing pressure to bear upon qualified assistants to prevent them selling their services to companies has not yet been presented in a feasible form. There is no reasonable ground for believing that it will ever be possible to get legislative assistance in this policy of coercion. And the attempt to induce the assistants to bear the brunt of the battle seems at the best somewhat unheroic. It might be possible, perhaps, to

considerably harass the enemy if men in business were prepared to buy up on sufficiently favourable terms the assistants who make it possible for unqualified companies to carry on the business of pharmacy. This kind of "picketing" is the only likely method of striking at the companies with effect; it would be trade-unionism of the most genuine character; but is there any prospect of such a plan being adopted by chemists?

We argued lately that the percentage of "craft" left in modern pharmacy is almost a negligible quantity. That is the consideration which prevents the effective application of trade-union practices to such a trade as that in drugs. Artisans of a particular kind can combine to raise the market-value of their services, so can professional men, so can chemists as far as they are either craftsmen or professional men; but under the conditions of modern competition, combination of a widespread character among traders has become impracticable. Mr. Druce, we think, established his point that the primary object of the Pharmaceutical Society was trade protection. But it by no means follows that it can with advantage make that its primary object still. Certainly a policy of trade-unionism is incompatible with its statutory functions. Mr. Druce is discreetly vague as to the nature of the "more forward policy" which he advocates, and which he hopes will be adopted "with the increase of members." It might be as well to await this more forward policy and discover its advantages before backing it.

Poisons Regulations

IT appeared from the report of the Pharmaceutical Council-meeting last week that the President of the Society agreed with Dr. Symes's suggestion that the time is ripe for reopening the question of poisons-regulations. Having expressed this pious opinion, which met by the way neither assent nor dissent, the Council passed on to the more congenial topic of local secretaries and the means of securing more subscribers.

No one who knows the history of British Pharmacy since 1868 can doubt that the trade owes the persistent distrust of the Privy Council to the obstinacy with which the chemists of thirty years ago resisted the official requirements. The adoption of storage regulations was part of the bond, said the Privy Council. It was an optional provision, replied the chemists; and they conjured up visions of inspectorial despotism at which they shuddered in anticipation. We fancy there are a good many of the advertising drug-stores of the present day who would willingly pay handsomely for the certificate of a Government inspector in regard to the perfection of their storage-arrangements.

We do not know if it will be taken as fresh evidence of hostility to the Society if we indicate our agreement with the President and Dr. Symes in this matter. Probably they are in a minority, as Dr. Symes found himself when he proposed the codification of compulsory regulations ten years ago. Once in a decade, however, is not too often to test the opinions of the Council on a subject of so much importance. Will he not, therefore, this year, even at the risk of jarring the harmony, as Mr. Beecham would put it, draft his proposals and bring them forward again for adoption or rejection?

The Pharmacy Act, 1868, certainly did contemplate the enforcement of some provisions for keeping, dispensing, and selling poisons. The first section of the Act requires every chemist to "conform to such regulations as to the keeping, dispensing, and selling of such poisons as may from time to time be prescribed by the Pharmaceutical Society, with the

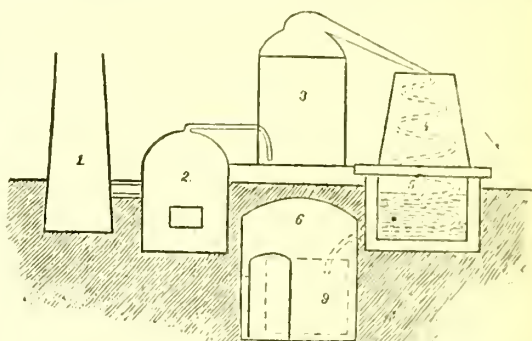
consent of the Privy Council." When the Privy Council called upon the Pharmaceutical Society to prescribe such regulations, the latter body refused to do so. They were no doubt within their legal rights: the Act did not say they should prescribe regulations; it only suggested that they might. But a discreet compliance with the wishes of the supervising authority at that time would probably have made a substantial difference in the subsequent history of our calling. The schedule of poisons would have been willingly extended, and the two attempts by the Privy Council to take the control of the trade into their own hands, would never have been thought of. Moreover, it might have happened now and then that a life would have been saved or suffering averted.

A willing adoption of reasonable regulations now would destroy the only argument the Whitehall authorities can adduce for refusing to add carbolic acid, and perhaps some other substances, to the schedule. If they should be still obdurate, it becomes a duty for the Council of the Pharmaceutical Society, who are charged by statute with the responsibility, in view of the never-ceasing sacrifice of human life by the reckless sale and distribution of carbolic acid, to submit their proposal to the arbitration of Parliament.

Citronella Oil.

IN reporting upon the market of this oil on October 29 we stated that up to October 4 there had been exported from Ceylon this year 1,174,205 lbs., or nearly as much as was exported in 1897, the total then being 1,182,867 lbs. Considering that the oil is used almost wholly as a perfume for toilet-soap, and that the consumption is increasing every year in spite of the advent of other perfumes, the oil is an excellent index to the expansion of the soap-trade. A quarter of a million lbs. of citronella oil should scent at least as many cwt. of soap, but probably a million cwt. of the latter is nearer the mark. There is nothing quite so cheap and strong as citronella oil for soap-scenting, so that the production of the oil and a constant supply of it are of considerable importance to trade. We at the same time quoted from an official report the statement that in 1892 some 20,000 acres in Ceylon were devoted to citronella-grass cultivation, "but the area now cultivated must have been considerably extended." We have confirmation of this in a report by Mr. Karl Fritzsche (Messrs. Schimmel & Co., Leipzig) which we have since received. Mr. Fritzsche has visited the citronella-fields, and he finds that the area is between 40,000 and 50,000 acres. The districts are situated in the southern province of Ceylon, the bulk of the fields being in the Matara district and extending eastwards into the Hambantota district. There is a little also in the Galle district, which is quite isolated from the Matara fields. The grass grows on the hillsides, and requires practically no attention until the harvest seasons come round. There are two harvests each year—the summer one in July and August, and the winter one extending from December to February—the exact time and length of the harvest depending upon the weather and the labour available, but it is within these periods, although it might go on all the year round if labour were available. The grass is cut and bundled by women, much in the same way as corn used to be cut in this country. Coolies then take it to the distillery, which is constructed as shown in the outline-sketch which we reproduce from Mr. Fritzsche's report. This distillery does not stand in the open, but in a well-built shed. In the figure, 1 is the chimney (outside the shed); 2, a steam-boiler, with safety-valve and water-indicator, from which a steam-pipe passes into the cylindrical iron

still, 3, which is 6 to 7 feet high and 3 to 4 feet in diameter. The stills are worked singly or in pairs, and are provided with a movable head, which connects with the worm in the



condensing-tub, 4, and the tank, 5, situated in the earth and containing water. The distillate is collected in the tank, 9, situated in the cellar, 6, to which the coolies have not access, as they are great thieves; and that, indeed, is the reason why the whole operation is not done above ground. A still such as this produces from 36 oz. to 44 oz. of oil per day. This is also the yield of oil per acre in the summer time, but the winter grass yields from a fourth to half as much only. The exhausted grass after drying in the sun is used as fuel, and as no wood is available distillation is stopped during the rainy season. The use of direct-heat stills is dying out, and most of the citronella oil is now obtained by steam-distillation, no water being added to the grass, which is put into the stills within six hours, generally, of its being cut. Messrs. Schimmel mention that a citronella oil of exceedingly fine quality is now distilled in the Straits Settlements, but there is very little of it, and Java is also embarking on the enterprise, so that the comparatively low prices of the article do not frighten the producers, which is not surprising when we learn from Mr. Fritzsche that the chief cost of production is labour, which does not amount to more than 1c. per oz. of oil, so that the Mincing Lane price shows a good profit.

BOARD OF TRADE RETURNS.

The returns for the month of October shows that trade continues in a healthy state in most of its branches, the exports showing a moderate increase, while the imports exhibit a falling-off, owing, no doubt, to the political outlook. The total value of the imports for the month stands at 38,601,673*l.*, and for the ten months of the present year 383,311,220*l.*, or an increase of 14,629,754*l.*, of which upwards of 13,000,000*l.* is accounted for by articles of duty-free food and drink. The exports for the month are valued at 19,863,019*l.*, and the increase over the corresponding month is 579,967*l.* Chemicals, however, continue to show a steady falling-off, the amount exported last month being 673,690*l.*, or a decrease of 78,830*l.* Canada's trade with Great Britain grows steadily, her imports showing an increase of 622,846*l.* for the nine months, and her exports of 524,822*l.* The United States during the three quarters supplied us with goods to the value of 90,012,309*l.*, or about 8,000,000*l.* more than the imports from France, Germany, and Holland put together. The trade with Australasia keeps steady at about 15,000,000*l.* of exports and 23,000,000*l.* of imports, while South African imports from us have fallen off by about 1,000,000*l.* With regard to exports, 100,431*l.* worth were exported against 106,436*l.* in the corresponding month, or a decrease of 27,000*l.* for the ten months ending October 31. Only 576 tons of copper-sulphate were imported as compared with

1,070 tons, and of alkali 375,239 cwt. were exported, as against 483,891 for the same time of 1897. Quicksilver exports were 271,440 lbs., or an increase of 74,329 lbs. Turning to imports, we find increases in the value of cinnamon, peppers, unenumerated spices, quicksilver, cocoanut oil, turpentine, and gum arabic, and, on the other hand, decreases in ginger, brimstone, olive, and palm oil.

LIQ. MORPH. HYDROCHL. FOR LIQ. MAG. CARB.

Dr. Fotheringham, of Motherwell, gives particulars in the *British Medical Journal* (page 1251) of the recovery of an infant from morphine-poisoning. The mother bought one-pennyworth of fluid magnesia from a druggist, and gave it a teaspoonful. Unfortunately the druggist had taken down the liq. morph. hydrochlor. bottle instead of the liq. mag. carb. one. Apparently the alphabetical arrangement obtains in the shop. Better to keep all the poisons together.

SOUTH AMERICAN TRADE.

Reports have lately been printed by the Board of Trade giving the accounts received from their Special Commissioner, Mr. T. Worthington, who was sent to South America last January to inquire into and report upon the conditions and prospects of British trade. These reports, though printed in Blue-books, do not seem to have been published, for as yet, at least, they are not obtainable at the official printers'. There is not much in the reports of interest to the drug-trade, but from Argentina Mr. Worthington reports that continental and American competition is treading closely on British business. Canstic soda, used by soap-makers, comes chiefly from England, but some from the Continent received lately had been reported purer of its kind. The U.S. is gaining on us with regard to sulphate of copper. Mineral waters are largely manufactured there, though 136,000 dozens were imported in 1896. A large trade in sheep-dip is done, and it is increasing. Nicotine dip, he has heard, is not liked as well as the chemical sheep-dip imported from England. False marking and piracy of trade-marks he finds very general, and though the law provides against such fraud it is left for the parties injured to take action.

GOOD NEWS FOR PUFFERS.

The case of Hubbuck *v.* Wilkinson, which we briefly report elsewhere, follows that of Mellin *v.* White and many others, and makes it clear that a person may advertise his own goods with whatever eloquence and cogency he can command, and is not liable to an action for trade-libel even though he generally declares them to be better than those of all rivals, or, specifically, that they are better than some particular rival's. Nor is the case altered if the disparaged party can prove conclusively that the statements are not true. Neither would it be held to be libellous even though malice could be proved. It might, and, no doubt, would, be a trade-libel if A were to say B's goods were adulterated or injurious. But it appears that A may legally say that his pills are best in the world; he may even say his pills are better than B's pills, though sold at less than half the price; but he may not say (except as a matter of public duty) that B's pills are injurious. And the reason for the refusal of the Courts to regard such statements as we have indicated as trade-libels is obvious. The Courts would soon be converted into merely advertising agencies. They would be called upon to decide on the respective merits of different pills, soaps, foods, whiskies, and wines. It is better, they think, to let the competitors fight out their rivalries among themselves.

HE, in the course of a discussion on toothache, remarked that a remedy was once recommended to him which he applied before the toothache came on. "I put the stuff in my mouth" (he said) "before the toothache began, so that when it began it didn't begin at all." The odd thing was that he was a Scotchman.

Benzoin.

A Contribution to B.P. Criticism.

By Karl Dieterich, Ph.D.

RECENTLY I discussed in this journal the balsams, resins, gum-resins, and milky juices of the British Pharmacopœia. One of the most important pharmaceutical resins I reserved for separate discussion—viz, benzoin—and I now desire to compare the British Pharmacopœia characters for this product with the German, and make proposals for quantitative analysis of benzoin for the next British Pharmacopœia, as I have recently done for the German. In the last edition of the B.P. there is only one description for both kinds, Siam and Sumatra, but no test or distinction between these is given. Through the admission of the Siam as well as the Sumatra benzoin the B.P. differs essentially from the German, which admits only the pure Siam benzoin. I consider it absolutely necessary that in the next edition of the B.P. separate descriptions and analyses of both the Siam and the Sumatra benzoin should be provided if both kinds are again admitted. I would, however, advocate that the Sumatra benzoin, being much less pure than the Siam, should not be officialised. Dunlop, in his interesting paper on benzoin, has referred to the inferiority of the Sumatra kind, and pronounced it to be inadmissible in a Pharmacopœia. Through my researches on the same subject I have come to a similar conclusion, as the following figures indicate:—

Ash per cent.	Soluble in Alcohol	Acid	Ester-number	Saponification-number
<i>Siam Benzoin</i> :—				
0.028-1.5	95-100	140.0-170	50-75	220-240
<i>Sumatra Benzoin</i> :—				
0.368-1.829	68.09-95.80	103.60-132.30	65.80-123.20	143.80-231.70

Dunlop found 8-30 per cent. of insoluble heterogeneous substances in Sumatra benzoin, and in the discussion following his paper MacEwan recommended the testing of benzoin by the methods of Tschirch, Lüdy, and K Dieterich. These data establish conclusively that Siam benzoin is the only kind that can be considered admissible in a Pharmacopœia, and, further, that it must also be identified and tested. With the latter object, I would recommend the determination of the amount of ash, of the proportion of matter soluble and insoluble in 96-per-cent. alcohol, of the amount of water, and, finally, the acid, ester, and saponification numbers, according to my convenient and expeditious methods. The amount of ash is a fair test of quality, the acid, ester, and saponification numbers are means of identification, and in conjunction with them the proportion of soluble and insoluble matter quickly shows the purity of the drug. The requirement of the B.P. that both the Siam and the Sumatra benzoin shall be completely soluble in alcohol is impossible commercially, at least as regards Sumatra benzoin. I have rarely met with such Sumatra benzoin, and this is the experience of other analysts. I should also add that Sumatra benzoin, if admitted, should be identified by its solubility and the cinnamic-acid (benzaldehyde) reaction. Siam benzoin can also be identified or distinguished from Sumatra benzoin by the cinnamic-acid reaction, although I described (vide *Helfenberg. Annual*, 1897) a perfectly pure kind of Siam benzoin, which I personally brought over from the London market, as giving the cinnamic-acid reaction. Such cases are, however, very rare. If we now compare the article on benzoin in the British Pharmacopœia with that of the German, we can only give the German Pharmacopœia III. the preference in so far as the latter admits only the Siam

kind, though without any test as to purity. For the German Pharmacopœia I have recommended a maximum of 1.5 per cent. of ash, absence of cinnamic acid, and a maximum of 10-per-cent. alcohol insoluble matter for the British Pharmacopœia. I would advise the same test to be adopted for the Siam benzoin, with the following description:—

A resin imported from Siam in flat or rounded pieces, brown outside and white inside. Heated in a water-bath it gives off a very pleasant odour; as the heat is increased the odour becomes pungent, owing to sublimation of benzoic acid. If a little finely-pulverised benzoin is warmed with a solution of potassium permanganate, no odour of oil of bitter-almonds should be perceptible even after the mixture has stood some time. If 10 grammes are exhausted with hot 96-per-cent. alcohol, until a few drops evaporated in a watch-glass leave no residue, and the proportion insoluble in alcohol is determined by drying it at 100° C., the latter should not exceed 1 per cent. The alcoholic solution itself should colour blue-litmus paper a bright red, and on addition of water should become milky. Siam benzoin should not leave more than 1.5 per cent. of ash on incineration. If exactly 1 gramme of finely-powdered benzoin be mixed with 10 c.c. seminormal alcoholic potash and 50 c.c. of alcohol, and after exactly five minutes titrated with seminormal sulphuric acid, using phenolphthalein as indicator, the acid-number obtained should be between 140 and 170. If 1 gramme of benzoin is macerated in 20 c.c. seminormal alcoholic potash and 50 c.c. of benzol sp. gr. 0.700, in a glass-stoppered bottle for twenty-four hours, at the ordinary temperature, and thereafter the mixture titrated with seminormal sulphuric acid and phenolphthalein, the saponification-number obtained should be between 220 and 240. The ester-number, calculated from the saponification and acid numbers, should be 50 to 75.

If the Sumatra benzoin is admitted it should be separately described, and be identified by means of the cinnamic-acid reaction; the maximum of ash required should be 1.5 per cent., the proportion insoluble in alcohol not more than 30 per cent., the acid-number 100 to 130, the ester-number 65 to 125, and saponification-number 180 and 230.

Helfenberg, near Dresden,

October 18.

Ballads of the Brokers.

I.

THIS tells of things in the sacred land

Where kola and pistachio

Are sold by bloods of the broker brand

In beard or waxed mustachio.

Of the aloc-Lord whose lightest word

Soothes many an angry passion,

And who stems the flood of dragon's-blood,

Or shakes the earth with a hammer-thud

In the true-born kingly fashion.

O'er that chosen band there is one who reigns

At least with a rule reputed,

But the moon will be blue ere his highness deigns

To forego his right disputed.

For his line he can trace from that ancient race

Who bartered nux with Noah,

Bought sem. cardam. from Methuselah,

And myrrh and spice from Abraham,

In the far-back days of yore.

He basks in the pride of his lineage long,

While green-eyed rivals quiver,

And sadly wish they were not so young,

Or could hide their youth for ever.

They can seek not fame from an ancient name,

Or aspire to kingly honour;

But their deals in gum strike the nations dumb,

And they talk of naught till the darkness come

But of kino and cinchona.

Anon the solemn youth gives stead,
And the mirthful follows after,
And the gleeome glance and the shaken head
Betoken joyous laughter.
To the rostrum comes one whose being hums
With the jests of bygone ages,
For he loves to poke the unwieldy joke,
As he knocks down squills with a hammer-stroke
To historic sale-room sages.

Now with cardamoms from Malabar,
Or ipecac. from Rio,
The parlous jest is thrown afar
And business wakes *con brio*.
Pale senna sells 'mid the frenzied yells
Of buyers seeking vainly
Each to heap up care and dull despair,
And aid in the shedding of ill-spared hair,
By the broker struck ungainly.

So thus to the seventeenth catalogue,
Now dull, now bright, they wander
From Jamaica wax, now much in vogue,
To musk and coriander.
The day is ne'er long with that eager throng,
And they'll bid while a senna-bale looms
Like a thunder-cloud in that palace proud,
Or the darkening day, like a winding shroud,
Cloaks "Ten" commercial sale-rooms.

New "C. & D." Books.

"Diseases and Remedies."

A concise survey of the symptoms and most modern treatment of ordinary diseases. Written by a physician, and edited by an experienced pharmacist, expressly for the information of chemists and druggists. 228 pp. Price 2s. 6d. net; by post, 2s. 9d.

"Pharmaceutical Formulas."

A book of useful recipes for the drug-trade. 670 pp. bound in leather. Price 7s. 6d. net; by post, 8s.

These books may be obtained direct from 42 Cannon Street, E.C., or from any of the following firms:—

Allison, E. & H. (Lim.), Hull	Lofthouse & Saltmer, Hull
Anderson & Co., Edinburgh	Lynch & Co. (Lim.), London
Ayrton & Saunders, Liverpool	McKesson & Robins, New York
Barclay & Sons (Lim.), London	Maw, S., Son & Thompson, London
Bleasdale (Lim.), York	May, Roberts & Co., London
Boileau & Boyd (Lim.), Dublin	Newbery, F., & Sons, London
Brown Brothers & Co., Glasgow	Oldfield, Pattinson & Co., Manchester
Butler & Crispe, London	Paterson, W., & Sons, Aberdeen
<i>Chemist and Druggist of Australasia</i> , Melbourne	Pinkertou, Gibson & Co., Edinburgh
Clay, Dod & Co., Liverpool	Potter & Clarke, London
Davidson & Gray, Dundee	Raines, Clark & Co., Edinburgh
Duncan, Flockhart & Co., Edinburgh	Raines & Co., York
Edwards, Wm., & Son, London	Sanger, J., & Sons, London
Evans, Gadd & Co., Bristol	Smith, T. & H., & Co., Edinburgh
Evans, Lescher & Webb, London	Southall Brothers & Barclay (Lim.), Birmingham
Evans, Sons & Co., Liverpool	Stevenson, H. E., & Co. London
Fletcher, Fletcher & Co., London	Sutton & Co., Chiswell Street, E.C.
Ford, Shapland & Co., London	Thompson, John (Lim.), Liverpool
Fraser & Green, Glasgow	Wilkinson & Simpson (Lim.), Newcastle
Glasgow Apothecaries' Co., Glasgow	Wilson & Co., Bradford
Goodall, Backhouse & Co., Leeds	Woolley, J., Sons & Co. (Lim.), Manchester
Hatrick, W. & R., & Co., Glasgow	Wright, Layman & Umney, London
Hirst, Brooke & Hirst (Lim.), Leeds	Wyleys (Lim.) Coventry
Ismay, John, & Sons, Newcastle	
Kemp, W., & Son, Horncastle	
Lennon, B. G., & Co. (Lim.), London	
Lewis, H. K., Gower Street, W.C.	

AMONG the forthcoming books of science is one entitled "The Soluble Ferments and Fermentation," by Professor J. Reynolds Green, F.R.S., which will form one of the Biological Series of the Cambridge Natural Science Manuals. Messrs. J. & A. Churchill promise shortly "A Text-book of Materia Medica," by Professor J. G. Greenish.

Legal Reports.

Puffing is not Trade-libel.

THE Master of the Rolls gave the judgment of the Court of Appeal, on Tuesday, in the action brought by Thomas Hubbuck & Sons (Limited) against Wilkinson, Heywood & Clark (Limited). Thomas Hubbuck & Sons alleged that the defendants had published a trade-libel by issuing a circular which purported to be a report of a trial of their Bell Brand genuine white zinc against Hubbuck's patent white zinc. The report, which was a detailed account of experiments, appeared to show that the former white zinc was actually better than that manufactured by Hubbuck's, though it was sold at a much cheaper price. The plaintiffs stated that the report was untrue, that the alleged trials had not been fairly made, that their zinc was, in fact, superior, and not inferior, to that of the defendants, and that they had been injured in their business by the publication of the report. They specifically complained that the defendants, by the use of the word "genuine," as referring to their white zinc, had implied that that of the plaintiffs was not genuine.

The defendants had applied under a rule of court that this statement of claim might be struck out as showing no reasonable cause of action, and the Master had ordered the statement to be struck out, unless amended within a specified time by averring special damage. This order had been confirmed by Mr. Justice Kennedy in chambers. The defendants, however, were not satisfied, and appealed for an unqualified order.

The Court of Appeal allowed the appeal. The Master of the Rolls said, in the course of his judgment: "The defendants' circular, when attentively read, comes to no more than a statement that the defendants' white zinc is equal to, and, indeed, somewhat better than the plaintiffs'. Such a statement, even if untrue and the cause of loss to the plaintiffs, is not a cause of action. Moreover, an allegation that the statement was made maliciously is not enough to convert what is *prima facie* a lawful into a *prima facie* unlawful statement. It is not unlawful to say that one's own goods are better than other people's, and *Allen v. Flood* (1898 A.C. 1) shows that malice in such a case is immaterial. The fact that the defendants call their white zinc genuine, and contrast it with the plaintiffs' patent white zinc, which is not called genuine, is relied upon by the plaintiffs as showing that the circular is or may be fairly regarded as a defamatory libel on the plaintiffs—*i.e.*, a libel on them in the way of their trade. But when the whole circular is looked at, and it is found that the defendants state that for all practical purposes the two contrasted paints are in every respect equal, it is impossible to treat the circular as anything more than a disparagement of the white-zinc paint made and sold by the plaintiffs. The plaintiffs say that the report of the experiments is untrue and that the trials were not fairly made. But, supposing this to be the case, the result is not altered." Moreover, his Lordship said that even if the plaintiffs were damaged by the report, the statement, if the only false statement in it is that the defendant's goods are as good as the plaintiffs', is not actionable. On this ground he refused the permission to the plaintiffs to amend by averring specified damage, which the Master had granted, and ordered judgment on the whole case to be entered for the defendants, with costs.

Discount in the Wholesale Trade.

At the York County Court, on November 8, Messrs. Bleasdale (Limited), wholesale chemists, Collier Gate, sued Messrs. Baines (Limited), retail chemists, Parliament Street, to recover 88*l.* 17*s.* 2*d.* for goods sold.

The case had been remitted from the High Court. Mr. Crombie, on behalf of the plaintiffs, said that 16*l.* 15*s.* 11*d.* had been paid into Court. Business relationship between the parties commenced some years ago, and was carried on annually until 1893, when Messrs. Bleasdale's secretary drew the defendants' attention to the fact that they were not paying promptly, and could not, therefore, be allowed discount. Messrs. Baines then considerably reduced their business with the plaintiffs, but in 1897 when Messrs.

Bleasdale's secretary was on his holidays the account made considerable strides. Subsequently the defendants agreed to pay 5*l.* a week in reduction of the old debt, to buy their goods from Messrs. Bleasdale, paying cash for each order, and to be entitled to discount on the cash so paid, such discount to be applied weekly in payment of the old debt. Messrs. Bleasdale reserved all rights in case of default on the other side. The first 5*l.* was paid, but the defendants were soon in default, and they asked plaintiffs to take payment in goods from their stock, by which they received about 29*l.* A further payment was afterwards made, and on plaintiffs applying for balance they were told that the defendants were entitled to discount which would about balance the account, and therefore they did not intend to pay. He, however, contended that Messrs. Baines were not so entitled.

Mr. Arthur Humphrey, manager to Messrs. Bleasdale, gave evidence to the effect that the defendants were not entitled to discount, because they had not complied with the arrangements they had made. They allowed the defendants 10 per cent. discount on drugs, and 12½ per cent. on patents, until they got so far in arrear.

Mr. Wilkinson, for the defence, said the case stood like this. Instead of invoicing an article to him at 18*s.*, the plaintiffs, let it be supposed, invoiced at 20*s.*, and agreed to take 10 per cent. off. This made it 18*s.* There was a discount contract, and if he took five years' credit the plaintiffs could not sue for any more. He could give notice that he would charge interest, but he could not alter the contract price.

Ultimately the plaintiffs agreed to accept 43*l.* in settlement of the claim, and judgment was given accordingly for that amount, less the sum paid into court, with costs, the money to be paid within fourteen days.

Valentine Meat Extracts.

AN action has been instituted in the Chancery Division, before Mr. Justice Stirling, in which the Valentine Meat Juice Company seek an injunction to restrain the Valentine Extract Company (Limited) from trading under their present name, or under any other name that would cause confusion as between the two companies. On November 4, Mr. Moulton, Q.C., for the plaintiffs, moved his Lordship to grant an interim injunction pending the trial. Mr. Upjohn, Q.C., who appeared for the defendants, said they had not had time to answer the bulky affidavits which, with 150 exhibits, including labels, medicine-bottles, and so forth, had been presented by the plaintiffs. His Lordship said he hoped that the costs of unnecessary affidavits would not be allowed. Mr. Moulton explained that the new affidavits referred to new instances of persons being deceived by the defendants' labels. In the end the motion was ordered to stand over for a week.

Sale of Food and Drugs Act.

OIL OF ALMONDS.

At the Melksham Petty Sessions on November 3, James Edward Bush, chemist and druggist, was summoned by the inspector for selling 4 oz. of oil of almonds which the county analyst certified was adulterated with other oil to the extent of 25 per cent. The inspector's assistant paid 6*d.* for the 4 oz. Mr. Bush, speaking for his own defence, referred to his experience as an analyst, and said he had made a careful analysis of the oil supplied to the inspector. He admitted it contained 25 per cent. of persic almond oil [peach kernel oil]; and consequently did not come up to the standard as laid down by the British Pharmacopœia for 1893. That standard, he said, only came into operation in May of the present year—four months ago. In previous editions no standard was laid down, and the oil in question was purchased before the alteration. He admitted a technical offence had been committed, but said there was no intention to defraud, and no moral offence. The Bench remarked that they were unanimous in saying there was no intention at all to defraud, but it was defendant's duty to see his goods were in accordance with the requirements, and they were bound to take notice of it. A fine of 1*l.*, including costs, would be imposed.

Unlicensed Medicine-vendors.

ON November 3, at the West London Police Court, George M. Nicoll, described as a hair-dye manufacturer, of Cambridge Road, Chiswick; Frederick Rowe, a clerk; and Harry Mobsby, an advertising agent, were brought up on warrants charged with vending medicines liable to stamp-duty without licences. Mr. Hawkins prosecuted on behalf of the Commissioners of Inland Revenue; and Mr. Oswald Hanson appeared for the prisoners. Detective-sergeant Fowler said he arrested Nicoll and Mobsby in High Road, Gunnersbury, on November 2. Mobsby, when arrested, had in his possession a six-chambered revolver loaded with two cartridges. In his jacket pocket he had a bundle of letters and postal orders, which he handed to the sergeant and said, "They have come for King's mixture this morning." In a bag which Nicoll was carrying were twenty-five letters, many containing postal orders for amounts varying from 1s. to 10s. 6d., all addressed to "Madame Rose." Rowe when arrested said, "I have worked for them for some time. I was not a partner, and did not think you would arrest me. Mobsby paid me well while I was with them. I left on the 23rd of last month as I was afraid of getting into trouble." At Cambridge Road, the address given by Nicoll, were found a large number of bottles of chemicals, circulars, and type-written letters in the name of King and Rose, also a large number of letters from all parts of the country, and bottles of mixture, wrapped and labelled ready for posting. On the application of the prosecution Mr. Plowden remanded the prisoners, and allowed bail.

Bankruptcies and Failures.

Re W. T. COOMBS, Cardiff, Chemist and Druggist.

THIS bankrupt came up for his public examination at the Cardiff Bankruptcy Court, on November 8. He was represented by Mr. Cadle. In answer to the Official Receiver, the debtor stated that he commenced business in December, 1896, with money borrowed from a few friends. He first made out a rough balance-sheet in February last, when he found that he was insolvent. He had previously been sued in the county court, but he met the claim. It took some time to establish a business like his, but, he believed, that if he could have gone on, it would have paid. Continual pressure, however, by creditors and the heavy interest which he had to pay for borrowed money crippled him. On one loan he had to pay as much as 40 per cent. interest, and part of that money was still owing. In addition to his business he drew a salary as dispenser to the Cardiff Union workhouse, which was situated at the top of the street where he carried on business. He also dispensed for several medical men. He estimated his takings for the first eighteen months at 31*l.* per month, and the rent of his shop was 40*l.* a year. Before coming to Cardiff he was in business at Brentford, where he also got into difficulties. He had four children. Part of the furniture belonged to his wife. The examination was closed.

Re THOMAS ROWAN, 14 St. Mary Axe, E.C., Disinfectant-salesman.

AT a sitting of the London Bankruptcy Court, on November 8, the public examination of this bankrupt took place. His accounts show debts, 498*l.* 2*s.*, ranking against assets, 335*l.* 10*s.* Replying to the Official Receiver, the bankrupt stated that prior to November 1888 he acted as salesman to a firm of disinfectant-manufacturers, and also for a short period manufactured on his own account. At that date he entered into an agreement with a firm of chemical-manufacturers to make for him Rowan's fluid and soaps, to invoice those goods to customers found by himself, and to share bad debts. His income from those sales had during the last three and a half years averaged 870*l.* per annum. He attributed his insolvency to a claim of Jeyes' Sanitary Compounds Company (Limited) in respect of the costs of a libel action that he unsuccessfully brought against them in 1887, and to the excess of his expenditure over income. The examination was ordered to be concluded,

Re JOHN JOSEPH LAWS, 14 Greyhound Lane, Streatham Common, London, S.W., Chemist and Druggist.

THE first meeting of the creditors interested hereunder was convened for Wednesday, at the offices of the Official Receiver for the Croydon district, Railway Approach, London Bridge, S.E. The statement disclosed gross liabilities 283*l.* 12*s.* 5*d.*, of which 256*l.* 2*s.* 5*d.* was due to unsecured creditors; to fully-secured creditors, 27*l.* 10*s.* The assets were returned at 190*l.* 17*s.* 11*d.*, from which 27*l.* 10*s.* had to be deducted for preferential creditors. The Official Receiver reported that the receiving order was made on the debtor's own petition. The debtor states he commenced business as a chemist at 14 Greyhound Lane, Streatham Common, in January, 1892, with a capital of 300*l.* The business was under his personal superintendence to March last, since which date he states it has been under the charge of a manager, he (the debtor) being employed at a drug-store at a salary of 150*l.* per annum. He alleges his failure to have been caused through want of capital, bad trade, and competition. He did not become aware of his insolvency until a few weeks before he filed his petition, although he admits that three years ago he became aware that he was in debt to the extent of about 100*l.* He kept a cash-book, which, however, only covers a small part of his trading, a ledger with his debtors, and a day-book; but at no time during the last three years has he made any balance-sheet. The greater part of the household furniture is claimed by the debtor's wife. As there were not enough creditors present to form a quorum, the estate is left in the hands of the Official Receiver for summary administration.

Gazette.

PARTNERSHIPS DISSOLVED.

Boustend, E., and Frodsham, A. E., under the style of The Froda Company, Liverpool, and Fenchurch Street, E.C., manufacturers of paint-cleaning liquids and detergents.

Bower, E., Bower, C. L., and Hoare, G. de M. G., under the style of Edward Bower & Co., Fenchurch Street, E.C., indigo and rubber merchants and dealers; so far as regards E. Bower.

Fagnani, H. B., and Drysdale, T., under the style of Fagnani & Drysdale, and the British American Ball-nozzle Company, Farringdon Avenue, E.C., merchants and manufacturers.

Herapath, C. K. C., and Myles, G. T., under the style of Herapath & Myles, Bristol, surgeons, physicians, and apothecaries.

Lamiman, C., and Worthington, G. V., under the style of Lamiman & Worthington, Tunbridge Wells, physicians and surgeons.

MaeArthur, J. S., and James, A., under the styles of MaeArthur & James, and The Cyanide-plant Supply Company, New Broad Street, E.C., and Glasgow, consulting chemists, &c.

THE BANKRUPTCY ACTS, 1883 AND 1890.

ADJUDICATION.

Hayward, William Henry, Fowey, chemist.

New Companies & Company News.

NORTH BRITISH WHITE-LEAD COMPANY (LIMITED).—Registered in Edinburgh, with a capital of 40,000*l.*, in 1*l.* shares, to carry on the business of white-lead manufacturers and merchants.

CRYSTAL WATERS COMPANY (LIMITED).—Capital 2,000*l.*, in 1*l.* shares. Objects: To acquire and carry on the business of aerated-water manufacturers carried on by John Thomas and Ernest Shuker, at 391 Hyde Road, Ardwick, Manchester. Registered without articles of association.

COLMANIA PREPARATIONS (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with Tom E. G. Lerrey, and to manufacture, sell, and deal in embrocations, plasters, ointment, soaps, candles, paper, varnish, glycerine, paints, dyes, colours, &c. Registered office, 337 and 338 High Cross, Tottenham, N.

KENT ICE AND SOAP WORKS (LIMITED).—Capital 15,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with Herbert

R. Trehearne, and to carry on the business of ice manufacturers and merchants, soap, candle, and varnish makers, and dealers in tallow, oil, glycerin, paints, dyes, cement fats, cattle-foods, &c.

HILL AND CASTLE (LIMITED).—Capital 20,000*l.*, in 1*l.* shares (8,000 preference). Objects: To acquire the business carried on by Lewis G. Hill and Wm. Castle, at Cheese Lane, Bristol, and to manufacture and deal in paints, varnishes, colours, enamels, oils, compositions, white-lead, salt, alkali, soda, size, glue, whiting, pipe-clay, plaster, pitch, tar, disinfecting-powders, soaps, artificial manures, &c.

STOWER & Co. (LIMITED).—Capital 10,000*l.*, in 1*l.* shares. Objects: To acquire the business carried on as "Stower & Co." at Liverpool, and to manufacture, sell, and deal in concentrated fruit essences, custard and blanc-mange powder, jelly-crystals, coffee-extract, bouillon-beuf, &c. The first directors are Henry P. Stower, Albert W. Kendall, and Mrs. Lewisa M. Stower.

ANGLO-ITALIAN CHEMICAL AND MINERAL COMPANY (LIMITED).—Capital 20,000*l.*, in 1*l.* shares. Objects: To manufacture, import, export, sell and deal in sulphuric acid, sulphate of copper, superphosphates and artificial manures, and other chemical and mineral products. The first directors are Right Hon. Viscount Morpeth (Chairman), Wm. G. Granet, Edward A. Le Mesurier, and Reginald J. Pearse. Registered office, 8 Bishop's Court, Chancery Lane, W.C.

JOHN DUCKWORTH (LIMITED).—Capital 10,000*l.*, in 1*l.* shares. Objects: To acquire the business carried on by Frederick Duckworth at Nursery Works, Radcliffe, Lancs, as "John Duckworth," and to carry on the business of chemical-manufacturers, gum and starch manufacturers, general drysalers, oil-merchants, varnish, polish, size, glue and paste manufacturers, drug and dye-ware grinders, colour manufacturers, &c. Frederick Duckworth is the general manager of the company.

JOHN E. EDINGTON (LIMITED).—Capital 500*l.*, in 1*l.* shares. Objects: To acquire certain property at 35 Watson Street, Birkenhead, belonging to John E. Edington, and to carry on the business of chemists, druggists, dentists, patent-medicine vendors, and manufacturers, &c. The first subscribers (each with one share) are:—Walter Haxworth, 28 Kingsland Road, Birkenhead, surgeon; John E. Edington, surgeon's assistant, Edward Edington, tile broker, and Amelia Edington, all of 35 Watson Street, Birkenhead; Samuel P. Edington, Malpas, Cheshire, draper; Thomas E. Teague, contractor, and Wm. Teague, slater, both of Garden View, Leyfield Road, West Derby, Liverpool. The subscribers are to appoint the first directors. Qualification, 1*l.*

HARNETT & Co. (LIMITED).—Capital 15,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with George H. Harnett for the acquisition of the business carried on as "Harnett's Chemical-works," and to carry on the business of manufacturing and retail chemists, druggists, drysalers, oil and colour men, and makers of proprietary articles. The first subscribers (each with one share) are:—George H. Harnett, "Thanet," Devonshire Road, Balham, S.W., insurance agent; Alfred J. Campion, Yorkshire Grey Yard, Eagle Street, Holborn, E.C., manufacturing chemist; Herbert G. Thompson, 1 Red Lion Court, Watling Street, E.C., merchant; Louis F. Elliott, 19 Leadenhall Street, E.C., steamship agent; Robert S. Whalley, Lloyd's, E.C., underwriter; Richard J. Hodgson, 3 Brick Court, Temple, E.C., barrister; Reginald C. Gould, 35 Vanbrugh Park, Blackheath, S.E., solicitor. The first directors are George H. Harnett (Chairman), Herbert G. Thompson, and Alfred J. Campion.

LADIES' MEDICAL AND PHARMACEUTICAL ASSOCIATION (LIMITED).—Capital 3,500*l.*, in 1*l.* shares. Objects: To advance the interests of gentlewomen who are qualified to act as doctors, dentists, and chemists (by examination), or who are desirous of acting in those capacities, to form a preliminary school of pharmacy, to establish a registry or agency of and for gentlewomen seeking engagements as general, midwifery, and surgical nurses, to open a consulting-room where women may have the advice and attention of gentlewomen duly qualified in medicine and dentistry, and to carry on the business of pharmaceutical chemists, drug-

gists, &c. The first subscribers are:—Mrs. Emma Burn, 30 Tivoli Road, Crouch Erd, N. (10 shares); Mrs. Anna M. Bryant, 153 Stapleton Hall Road, N. (1); Mrs. Charlotte Burnet, 48 Upper Gloucester Place, W. (1); Miss Laura L. de Lassalle, 33 Store Street, Bedford Square, W.C. (10); Miss Mary Hoc, 75 Hereford Road, Bayswater, W. (10); Mrs. Adela H. Hordern, 139 Inverness Terrace, W. (1); Miss Emily L. C. Kingsford, 56 Hewitt Road, Harringay, N. (10). The subscribers are to appoint the first directors. Qualification, 10*l.* Remuneration, 100*l.* per annum, divisible.

THE POMONA CHEMICAL COMPANY.—At the County Palatine Court, Manchester, on November 7, Mr. Materley applied on behalf of the Williams Deacon Manchester and Salford Bank, and other debenture-holders in the above chemical company, for the appointment of a receiver for the enforcement of their security. The company was incorporated in 1895, with the nominal capital of 12,000*l.*, of which 10,355*l.* was paid up. The winding-up order was made in July under the supervision of the Court, but it had not been gone on with. By consent the motion for a receiver was made into a motion for judgment, and the Vice-Chancellor made the order and appointed Mr. R. A. Allward receiver and manager.

Marriage.

PRINCE—HUGHES—On November 2, at Carnarvon, John Prince, A.P.S., Connah's Quay, to Frances Georgina, eldest daughter of Mr. Thomas Hughes, Coedlhai.

Deaths.

CORNER.—At Whitby, on November 6, Mr. Thomas B. Corner, chemist and druggist, Baxtergate. Aged 52. The late Mr. Corner served his apprenticeship with Mr. J. Stevenson, who subsequently took him into partnership, and for many years the firm was known as Stevenson & Corner. Some years ago the senior partner died, and the business was carried on by Mr. Corner until his death.

DAVIES.—On October 16, Mr. E. J. Davies, chemist and druggist, late of Seymour Street, N.W. Aged 30.

FURNESS.—At her son's residence, last week, Mrs. Elizabeth Furness, mother of Councillor J. M. Furness, chemist, Sheffield. Aged 67.

JOTHAM.—On November 4, at Macclesfield, Mr. Edward Sparhawk Jotham, Licentiate of the Apothecaries' Society. Aged 55.

LUND.—On October 24, at York, Mr. Thomas Lund, chemist and druggist. Aged 63.

SWANN.—The proprietor of the well-known Swann's English pharmacy in the Rue Castiglione, Paris, died on Tuesday last, November 8, at his residence in the Avenue du Bois de Boulogne, Paris. Mr. H. H. Swann was one of the best-known members of the English colony in Paris, and his business was a very extensive and profitable one. He was the pharmacien who assisted the late Dr. Churchill in his experiments with the hypophosphites, the business in which grew to very large dimensions. Mr. Swann was married to a French lady.

WILSON.—At Werneth, recently Mr. A. J. Wilson, chemist and druggist. Deceased had been in business in Manchester Street, Werneth, for over thirty years.

THE CHEMIST AT A DISCOUNT.—The Madras Government does not see its way, "in the present financial circumstances," to reconsider its decision not to co-operate with the Mysore Government in the appointment of an agricultural chemist. It appears, however, that the Government of India contemplates the appointment of an entomologist as referee for the whole of India; and a botanist is shortly to be appointed for the Madras Presidency.

Dewsbury Chemists and the Price of Beecham's Pills.

ON Monday evening last a meeting of the Dewsbury and District Chemists' Association was held at the Dewsbury Town Hall, the meeting having been called to give Mr. Glyn-Jones, Secretary of the P.A.T.A., an opportunity of replying to the paper on "Cutting and the Fixing of Prices" read at a previous meeting by Mr. C. Rowed, manager for Mr. T. Beecham, proprietor of Beecham's pills.

Mr. A. Foster, President of the Dewsbury Association, was the Chairman. The attendance numbered twenty-four, including visitors from several neighbouring towns.

The Secretary (Mr. Gledhill) read correspondence he had had with Mr. Glyn-Jones, Mr. Rowed, and Mr. Glover. Mr. Rowed had written, in reply to the invitation to be present: "I beg to decline the honour of meeting the Secretary of the P.A.T.A.; but I shall be glad to send Mr. Glover to your meeting, as his knowledge of the trade may be of some use to you." Mr. Jones having been informed that Mr. Rowed would not be present, wrote saying he thought the trade would be entitled to draw its own conclusion from that gentleman's decision not to meet him.

Mr. Glyn-Jones raised the question as to the character of the meeting, and asked whether only the trade and trade press would be supplied with reports.

The Chairman agreed that it would not be desirable that remarks made at the meeting should be published to the public.

Mr. Glover then said he desired to make an observation before Mr. Jones proceeded with his remarks. In the notice calling the meeting it was stated that he would reply to Mr. Jones. It was not his intention to indulge in a wordy fight. He hoped later on to continue the remarks he made at the first meeting. He also wanted to show that he had not "spoken presumably in ignorance," as the *Anti-Cutting Record* had it. Mr. Rowed came and read a paper on the invitation of the Secretary of the Association, and he showed why Mr. Beecham had not put his pills on the P.A.T.A. Mr. Beecham was not fighting the P.A.T.A., nor did he hold a brief for the cutters. They agreed with the aims of the P.A.T.A., but not with its methods.

Mr. Glyn-Jones said first he would like, as Secretary of the P.A.T.A. and representing 3,000 members, to ask one or two questions with reference to the report of the previous meeting. Did the Dewsbury chemists hold opinions such as the report made it appear they held? Did they think 2½ per cent. was ample to cover the working-expenses in connection with Beecham's pills? [Mr. Glover: They did not dissent.] Did Mr. Barker, of Heckmondwike, as was stated in the report, "rather jar the harmony of the meeting by insisting that they should not give anything undue prominence unless it carried 2d. in the 1s."

These questions were put to the meeting, and the answer was in the negative.

Mr. Glyn-Jones then proceeded with his address. He first explained how the Dewsbury "skirmish," as he termed it, came about. Mr. Rowed had attended a meeting, called, he believed, because the Dewsbury chemists had represented to Mr. Beecham that he should fix the price of the 13½d. box at 1s. This was only a small matter, but it should be borne in mind. The meeting was called to consider matters relating to the fixing of prices. They must not have any red herring drawn across the trail. Mr. Beecham was asked to make some arrangement whereby Dewsbury chemists could get 1s. for the 13½d. box. Mr. Rowed availed himself of the opportunity of attacking the P.A.T.A. and its methods. There was no doubt about Mr. Beecham's position in the matter. He (Mr. Beecham) seemed to be of opinion that it would not be to his interests that chemists should charge 1s. for the 13½d. size. They had to deal with a gentleman who did not want to grant what they asked. They could not blame Mr. Beecham for coming to such a conclusion in connection with his own business, but having come to such a conclusion he was not entitled to ask the trade for reciprocity, or to pat him on the back for having done something for them. Mr. Beecham manufactured and advertised an article at 13½d., and he was afraid of losing the support of the public if he insisted on it being sold for 1s. To start

with, he (Mr. Jones) could not understand the business morality of it. If Mr. Beecham considered 3½d. was an exorbitant price, why did he not cease to advertise it at 13½d.? (Applause.) It was said that to talk of 2d. in the 1s. in places like Dewsbury was ridiculous. That was Mr. Beecham's answer to their request. And Mr. Glover was there to show them why it was ridiculous. He was rather surprised to find the editor of THE CHEMIST AND DRUGGIST regarding Mr. Glover's argument as one of "commendable ingenuity." [The editor of the C. & D. never said this.] He (Mr. Glyn-Jones) considered it was such ingenuity as would land them in the Bankruptcy Court. What was his argument in support of his statement about towns like Dewsbury? If a man had a turnover of 5l. per month, he would clear 7½ per cent., and that for the year would be 90 per cent. That sounded big, but it was only 90 per cent. on 5l. To turn over 5l. per month they would have to sell thirty-three 13½d. boxes per week, and 1,760 customers would have to be served in a year to make the 4l. 10s. profit. It seemed to him people would have to take pills by the spoonful for breakfast before chemists could get the glorious 90 per cent. It was said the sale of Beecham's pills was 100,000 boxes per week. If that was so, 3,030 shopkeepers could get through the quantity by selling thirty-three boxes each per week. There would then be nothing for the others to do. About 30,000 shopkeepers were engaged, and if they all sold the same quantity of pills the total sale would be about 4,000 short of a million boxes per year. Mr. Beecham claimed that he brought customers to chemists' shops. That statement he denied. What he did was to divert a profitable branch of their trade into other channels, and people who formerly took black draughts, liquorice-powder, or other medicines, now took pills on which they got no profit. Mr. Beecham seemed to tremble at what he thought the result would be if the 100 shops occupied by cutters were debarred from selling the pills. But what about the 3,000 members of the Association? Were they to be ignored? Mr. Beecham must not expect to have the penny and the bun. Mr. Rowed stated that there was a most unreasonable condition of the P.A.T.A. requiring all supplies to be stopped if a retailer cut one of the articles on the list. This was not so. No proprietor was asked to withhold supplies from a customer if the customer would give an undertaking not to cut a particular article. If Mr. Beecham had been on the list they would have supplied him with a list of persons who were cutting, and he would have been free to supply any who were not on the list, and also any who were on if they would undertake not to cut Beecham's pills. Another statement made by Mr. Rowed was that the system had been tried in America, and had been a failure. The laws in the United States prevented the Association being worked there. The speaker then dealt with Mr. Rowed's comments on a letter which had been published in the *Anti-cutting Record*, which he said he did not believe any respectable trade journal would have published. He (the speaker) had a better opinion of the drug-trade Press than to believe that that letter would have been excluded from any paper to which it was sent. Mr. Beecham had withdrawn from the Association on account of that letter. The P.A.T.A. from its inception had discouraged all unprofitable business in proprietary articles, but it was only when it was impossible to get a reasonable profit that the P.A.T.A. had advocated that retailers should use every legitimate means to discourage the sale of such articles. But it seemed strange to object to a letter and then publish it to every chemist and druggist in the land. Mr. Beecham said he has been singled out for attack by the P.A.T.A. To a certain extent that was true, but why? Because he was one of the few proprietors who had apparently come to an unfavourable decision upon this point, that his interests lie with the cutters. It was the duty of the Association to attack him. In concluding, Mr. Glyn-Jones explained that, as far as he was concerned, there was no personal feeling in the matter; it was purely a matter of business. Mr. Beecham had a right to come to any conclusion he liked and they had a right to take their own course.

Mr. Glover said he knew many looked on Mr. Glyn-Jones as little short of a "redeemer"; he regarded him as a false prophet, and believed he could justify that opinion, though he could admire his perseverance and fighting-power, which it was a pity were not rewarded by better results. He

asserted the utter failure in many places of the P.A.T.A. To admit that P.A.T.A. articles are being sold in 100 towns at cut prices is surely admitting that the P.A.T.A. has failed in its object, but to minimise the fact by saying "it is a practice that is not likely to be carried on for long" is all rubbish. In July, 1895, when the P.A.T.A. started, Boots had 65 branches—to-day they have 150, and it was a mistake to think that their opposition was likely to cease. Working against the P.A.T.A. just suits their book. Mr. Glover then produced a placard of Boots announcing that they had dropped the price of Homoecea to 9½d. (P.A.T.A. price, 1s.), and booming Homoecea soap at 2d. per tablet, two tablets for 3½d. Any chemist who had stocks of Homoecea and Homoecea soap to meet this cutting would have to lose ½d. a bottle on Homoecea, while the single tablet of soap would cost him a trifle over 3½d. if he bought 10½d. worth. The P.A.T.A. had been trying to cut off Boots' supplies for over three years, and this was the result. He produced a cake of the soap bearing the registered number so that the source of supply can be traced. Mr. Jones might have it, and he or his secretaries could buy hundreds more, all numbered. Day's have forty-five branches—none in towns where Boots are—so the area in which Mr. Jones admits the P.A.T.A. is being defeated is a pretty big one if you only take these two firms. Day's, having seen a report of the recent meeting, had written to Mr. Beecham respecting Mr. Glyn-Jones's reference to their name. Mr. Day said: "In my letter to the *C. & D.* a year ago I offered to prove that we had at that time 1,000½d. worth of P.A.T.A. goods in stock, but Mr. Jones shrank from the proof. If Mr. Jones is at the present time so anxious to obtain goods which have passed through our hands we should be prepared to save him the trouble of buying them in ones and twos, and to sell him 'right away' 1,000½d. worth of P.A.T.A. goods at minimum prices. We should make a large profit on the transaction." Mr. Glyn-Jones says: "In less than three years out of 30,000 shops not more than twenty firms are on the stop-list." Twenty out of 30,000 looked very paltry; 2,000 would be nearer the mark. The latest stop-list, dated October 31, contained seventy-five names, and represented about 500 shops. That stop-list contained the names of progressive traders in various parts of the country, and putting the opposition down at the lowest figure of 500 shops, and adding to that the co-operative stores, who do 8 per cent. of Mr. Beecham's home business, it would be seen that the opposition was one it was madness to ignore.

Mr. Glover then gave quotations from the lists of other cutters—Heaton & Son, of Burnley, and Mr. G. Stringfellow, of St. Helens, who sold P.A.T.A. articles at cut prices. The black-list should contain many more names. He knew chemists who had signed the P.A.T.A. agreement and listed the articles at cut prices. Still, they were not on the list. Mr. Jones might make his black-list a long one, but that would disgnst the wholesale houses. The list is already a nuisance to them. It was a farce, it was iniquitous, and its legality was doubtful. Mr. Beecham had had letters from every part of the country thanking Mr. Rowed for his straightforward paper. He read an extract from one from Mr. Robertson, chemist, of Fraserburgh, a gentleman he had never seen, who wrote:—"The commercial battle will be won by tact, individuality, and adaptability to circumstances, and not by such coercive systems as the P.A.T.A., which are opposed to the spirit of the age." They had been charged with attacking the Association. So long as retailers wanted to know why they did not go on the P.A.T.A. they had to give their reasons, and if their information and facts were not favourable to the Association that was not their fault. Among the 200 articles on the protected-list only a few were generally stocked. Two of the best known when the P.A.T.A. started were Collis Browne's chlorodyne and Beetham's glycerine and cucumber. As to the first, he produced a list published by a chemist in Glasgow, and under the head of chlorodyne appeared the man's own chlorodyne, then Towle's and Freeman's, then Collis Browne's protected-price. That showed how Collis Browne's suffers in comparison in price. How many chemists have their own chlorodyne, and who prefer to sell Collis Browne's? He had seen substitute-bottles in many shops, and they were bigger. Beetham's glycerine and cucumber must not be sold below 10½d. Did none of them sell any make but his? When the *Anti-Cutting Record* has Sangers's 6d. size (see advertise-

ment, page 226, October issue) advertised, what benefit can Mr. Beetham expect? To protect articles under such surroundings was simply suicidal. Perhaps they all stocked Hall's orange-quinine wine, protected at 10½d. But what do the cutters do? They sell a quinine-wine in a bigger bottle as their own, and the makers offer not the slightest objection. The makers charge 5s. 9d. per dozen for the P.A.T.A. article, and at the same time sell the larger bottle at 5s. 6d. Frog-in-your-throat was another P.A.T.A. article. It was 'cute of the proprietor to work off a lot of this new article, and the P.A.T.A. helped him. They say they are going to advertise. It was about time. The only advertisements he had seen were in the trade-papers by traders offering it at cut-prices like 4s. 3d. In last week's *C. & D.* he saw: "What offers? Three gross 'Frog-in-your-throat,' one gross 'Daisy powders' [another P.A.T.A. article], whole or part.—Rigby, chemist, Barnsley." Liebig's extract had been taken off the list "upon the advice of Mr. Glyn-Jones until a grocery-list was formed." Mr. Gilligan informed a meeting last week that the Liebig Company would be pleased to "consider" the advisability of adding Liebig's extract to a list of grocery proprietary articles if a representative list were formed. These were facts, and he left it to their common sense to judge of boasts such as the one by Mr. Glyn-Jones about eighteen months that he "would buy up any cutters' protected articles in a week."

In reply to Mr. Glover, Mr. Glyn-Jones said the Chairman of the Homoecea Soap Company had told him the 4½d. tablet was withdrawn and that a salvage stock was being sold by Boots'. The placard, he pointed out, bore the words "for a short time only."

Mr. Glover: Mr. Boot shows everything for a short time only.

Mr. Glyn-Jones, referring to Mr. Day's challenge, said of course Mr. Day with his staff could buy up articles at a price. It was not contended that the P.A.T.A. would completely stamp out cutting. It had worked admirably up to the present. But they might as well argue that because there are still thieves about the detective force of this country was no good. Mr. Glover had alluded to substitution. Had he yet to learn that cutters substituted? Boots' assistants were paid a good commission for substituting.

Mr. Barker (Heckmondwike) proposed the following resolution:—

That this meeting condemns the action of Mr. Beecham's representative in sending to the trade-press and otherwise publishing a report of last meeting without the knowledge and consent of the meeting, and without such report having first been submitted to the officers of the Dewsbury Association for verification. The meeting further is of opinion that the report in question was an unfair and a biased account of the proceedings.

Mr. Catteridge (Dewsbury) seconded the motion, which was carried after some discussion, in which the Chairman said that, with the exception of the remark about Mr. Barker, it seemed to him a fair and faithful report.

Mr. Stead (Heckmondwike) then submitted the following:—

That this meeting of the Dewsbury and District Chemists Association, having carefully considered Mr. Beecham's proposed mutual arrangement for securing a fixed minimum retail-price for his preparations in this district, is of opinion that no arrangement, whether mutual or otherwise, which does not provide for a profit of at least 20 per cent. on each transaction, will be considered either adequate or satisfactory remuneration, and strongly advises all chemists to carefully abstain from in any way encouraging the sale of all proprietary articles the makers of which decline or neglect to use every means in their power to ensure a fair and reasonable margin of profit to the retailer; and the meeting is further of opinion that the P.A.T.A. affords the readiest and most effective method of attaining the object pointed out in this resolution.

Mr. Stead made a long speech in support of the resolution, which was eventually passed unanimously.

Subsequently Mr. Pickard addressed the meeting. He said that before the stores commenced the old-fashioned chemists were Mr. Beecham's friends. Now, Mr. Beecham seemed to be between the devil and the deep sea.

On the motion of the Chairman, a vote of thanks was passed to Messrs. Glyn-Jones and Glover, and after a similar vote to himself the meeting closed. It had lasted two hours and a quarter.

Pharmaceutical Mayors.

MR. FREDERICK MASON, chemist, High Street, has been elected Mayor of the borough of Rotherham. He is a native of the district, and served his apprenticeship with

the late Mr. T. Outwin, of Rotherham. He remained as assistant for two years with Mr. Outwin, and afterwards had experience in Newark, Derby, and London. He commenced business in the High Street, Rotherham, and on the death of his apprentice-master, Mr. Outwin, he purchased the business, which he merged into his own, and where he has remained ever since. He was first elected to the Town Council in 1883, and has done excellent work as Chairman of the Public Health, Improvement, and Sewage Committee. Mr. Mason is an honorary member of the Phoenix Lodge of Oddfellows, and a Past Warden of the local lodge of Freemasons; also a Life-Governor of the Boys' and

Girls' Masonic Charities. He takes especial interest in all kinds of field-sports, and is a director and life-member of various cricket and football clubs in the town and county. He is a big man physically as well as mentally, standing 6 feet 5 inches in height and weighing nearly 20 stone. He is a Liberal and a Wesleyan.

Councillor John Bower, who has been elected Mayor of Macclesfield, has carried on for forty years a successful

Mr. J. A. Steward, chemist and druggist, High Street, Worcester, who has been elected Mayor of that city, is a



MR. FREDERICK MASON
(Mayor of Rotherham).



MR. J. A. STEWARD (Mayor of Worcester).

native of Tenbury. He served his apprenticeship at Leominster, and was an assistant in London with Mr. S.



MR. J. KINSEY JONES
(Mayor of Llanidloes).



MR. JOHN BOWER
(Mayor of Macclesfield).



MR. E. P. CHAPMAN
(Mayor of Barrow).

business as a chemist and druggist in Mill Lane. He was born at Wilmslow in 1837, and when 13 years of age was apprenticed for seven years to the late Mr. Hadfield, chemist and druggist, Market Street. Shortly after the expiration of his apprenticeship he founded the business which he still carries on. His first appearance on the Town Council was in 1873, when he was nominated by the Liberal party. For seventeen years he has been a member of the Board of Guardians, and is Chairman of the Visiting Committee.

Betty and Messrs. Savory & Moore, Lancaster Gate. After leaving London he went to Paris, where he was four years in the Pharmacie Beral. Mr. Steward acquired his present business twenty-two years ago, succeeding the late Mr. Woods. The business was established in 1776, the original owner being an apothecary who made money-lending a profitable side-line, and who has been immortalised in fiction, under the name of Featherstonhaugh, by Mrs. Henry Wood. Mr. Steward is W.M. of the Worcester Lodge of

Freemasons, and entered the City Council in 1889. During the past year he has filled the office of High Sheriff. He is a Conservative in politics.

Mr. Edward Parker Chapman, who has been elected Mayor of Barrow-in-Furness, has been in business in Dalton Road, Barrow, as a chemist and druggist for some years. He first entered the Town Council in 1890. He is also a member of the Barrow County Council. Mr. Chapman is a Conservative in politics.

Mr. J. Kinsey Jones has been re-elected Mayor of Llanidloes. He is a partner in the business of Jones & Sons, established by his father in 1850. Mr. Kinsey Jones is 38 years of age, and unmarried, was apprenticed to Mr. E. Owen, chemist, Newton, and qualified from the Westminster College of Pharmacy. He has always taken great interest in public affairs, and has been in the Town Council since 1889. He is a Liberal in politics.

Mr. John Gilling, pharmaceutical chemist, of Saffron Walden, has been re-elected deputy-mayor for that borough for the ensuing year. Mr. Gilling was elected Mayor of Saffron Walden for 1897 (Jubilee year) and deputy-mayor for 1898, but early this year the Mayor had to leave the borough to reside at Brighton, and Mr. Gilling, as deputy-mayor, has had to take his place, so that he has practically had two years in the civic chair. He has now, in the absence from the town of the late Mayor, been elected deputy-mayor for 1899.

Commercial Notes.

WOOD-SPIRIT.

A new export article from Finland is wood-spirit. The Finnish Timber Company, Kotka, have lately shipped by the *Norra Finland* twelve iron cisterns, containing 6,947 kilos. of wood-spirit, to Germany. Small quantities have also been sent to Amsterdam.

TAHITI TRADE.

Statistical information received from the little French colony of Tahiti shows the United States in the lead in exports, with a record for 1897 of \$350,000, as against British exports amounting to \$260,000, these two countries practically supplying Tahiti's requirements.

NEW GUINEA SANDALWOOD.

The exports of sandalwood from British New Guinea during 1896-97 were 300 tons, valued at 2,323*l.*, as compared with 525 tons, valued at 4,035*l.* in 1895-96. It would appear (according to the consular report of Sir William MacGregor) that the decrease is more owing to the superior attractions of prospecting for gold than to exhaustion of the sandalwood forests, and that there is likely to be a revival in the industry this year.

SIAM PEPPER.

The exports of pepper from Bangkok in 1897 show a decrease in amount and value, 608 tons, valued at 22,693*l.*, being shipped, as compared with 831 tons, valued at 27,674*l.* in 1896. The price, however, improved during the year. In January, 1897, it was \$18 (36*s.*) per picul (133½ lbs.), and at the end of the year had exactly doubled—viz., \$36 (3*l.* 12*s.*) per picul. Siam pepper is grown on the slopes of the hills near Chantaboon by Chinese cultivators, and the whole supply is bought up by three British firms in Bangkok for the London market.

EXPORTS OF SAL AMMONIAC.

The Consul-General at St. Petersburg reports that a considerable quantity of sal ammoniac is imported annually at St. Petersburg, partly for the interior and partly for the Tentileff works near St. Petersburg, at which smokeless powder is manufactured. He further states that a portion of this chemical product, which figures in the imports-list as sal ammoniac, consists really of soda, the competition in the sale of the latter being so keen on the part of the local agents that they endeavour to conceal its identity under another appellation.

PERSIAN GUM-TRADE.

Bushire has hitherto been the only port on the Persian Gulf from which gums have been exported, but favourable markets in Great Britain and India during 1897 not only induced an export from Bushire of more than double that of

the previous year, but also encouraged shipments from Lingah. The advance recorded amounted to over 6,600*l.*, and considerable profits (says H.M. Consul-General at Bushire) were realised on local sales and on shipments. The exports of gums from the Persian Gulf ports were as follows:—Bushire, 12,516*l.* (1896, 5,650*l.*); gum mastic, 281*l.*; Lingah, 281*l.*; and Bahrain, 46*l.*

SEYCHELLES VANILLA.

In the opinion of Mr. Waddell, of the Ceylon Public Works Department, who is superintending schemes for developing the Seychelles, the vanilla-crop in that island has now assumed large proportions, and the Seychelles bean has been reckoned the best in the market. Recent yields have been good, but the vine is of uncertain growth, and often fails for several years in succession. Cultivation is not only unnecessary, but absolutely deleterious, and all that is required is to fertilise the flowers, which is done by hand with a brush. Of late there has been a considerable extension of the land under cultivation, and with favourable seasons there promises to be a considerable development.

SOAP-MANUFACTURERS IN U.S.

Up to within a few years ago soap-manufacturers in the United States bought their waste material from the large pork-packing houses, and used it in the manufacture of soap, but finding other and cheaper means for producing the article, the price of this waste material decreased. The packing-houses then found that by making the scap themselves they could make more money than by selling the waste material. Firms such as Armour & Co., Swift & Co., N. K. Fairbanks & Co., and others of Chicago are putting out a special brand of their own now, forming a competition that causes the qualities of the product to improve. Recently a plant has been started in Boston to manufacture toilet-soaps, and other houses there are endeavouring to put out something that is equal to the finer grades produced in Great Britain. The following figures show the imports into the U.S. from 1893 to 1897, in lbs.:—

	United Kingdom	Other Countries
1893	707,997	831,927
1894	554,739	689,326
1895	575,669	732,817
1896	653,592	857,738
1897	858,021	1,091,321

It is estimated that there are 3,600,000 cwts. of soap produced in the United States per annum, making an average of 5 lbs. to each person. Great Britain still holds the lead, however, in putting out a higher-grade article than is manufactured in that country.

ACIDS AND ALKALI IN POLAND.

A recent report on the industries of Poland states that locally there is a good demand for sulphuric acid, but the existing four manufactories produce chiefly for their own use, and are fully occupied. Acetic acid is in an unfavourable position; although several of the smaller establishments stopped working, the remaining four large ones (who had joined the acetic-acid convention) were obliged to lower their prices. Since the introduction of the spirit-monopoly, spirit used in making vinegar is delivered with Excise drawback, so that vinegar produced in this way is not much dearer than that prepared from acetic acid, and it is preferred by the public. The production of acetate of lime, used in making acetic acid, has further increased in Russia, and it is to be expected that in a few years the import of this article from Germany, America, and Austria will entirely cease. Russian 80 to 82 per cent. acetate of lime is sold at 2 15*s.* to 2 20*s.* per "pud" free to Polish stations. The consumption of calcined soda amounted in the whole of Russia to about 2,800,000 pud, in Russian Poland to about 600,000 pud. Of this the Russian manufactories produced about 2,250,000 pud, whilst of the quantity imported, about 275,000 pud came from Germany, about 145,000 pud from Austria, and 130,000 pud from England. The Russian consumption of caustic soda rose considerably last year, and is estimated at about 1,600,000 pud, of which about 1,200,000 pud were manufactured in Russia. Of the imports, about 100,000 pud came from Germany, 288,000 pud from England, and 12,000 pud from Austria.

Correspondence.

In writing letters for publication correspondents should adopt a concise, but not abbreviated, style. They are requested to

write on one side of the paper only. Letters, with or without a nom-de-plume, must be authenticated by the name and address of the writer.

Queries should be written on separate pieces of paper, and the regulations printed under the sections to which they apply, should be strictly observed.

Professor Tichborne on the B.P.

SIR,—I have to thank you for your editorial comment upon my lecture on the Pharmacopœia, and am prepared to take in good part the mild criticisms which you have dealt out to me; but I should just like to say a word about my list of changed doses, which I recommend the student and compounder to commit to memory, as I think they are the most important.

Yon, Mr. Editor, object to this list on the following grounds:—

First, because it shows unfamiliarity with the B.P.

Second, because you "can add thirty to this list which are more important."

You cite two as mistakes. The first of these is undoubtedly so. The *mistura sennæ co.* is inadvertently given in the wrong place, and should be one-fourth as strong again—not twice. The change of strength was quite intentional, and was effected to bring it into line with the other *misturæ* as regards doses.

The remainder of my list I must hold to be right from my point of view. The figures are only given as approximations, and when I say the *pil. saponis co.* is one-sixth stronger it will fairly represent the position to the student's mind. If you wish to give 1 gr. of opium, you have to take 5 gr. of the new pill. If you have only the old pill mass, you must take 6 gr.; therefore the new form is, as near as you can express it, one-sixth stronger than the old pill mass. In practice it is, if anything, more, if the $\frac{1}{2}$ oz. of glycerin required were weighed, and I cannot see how you can possibly make it one-twelfth. As regards thirty more preparations being more important than the sixteen selected by myself, from my point of view I cannot see it. If there is a slight change in the strength of a plaster or liniment, I do not think this is of sufficient importance to warrant the compounder interfering. I have made one exception, *liq. epispasticus*, because I have myself seen some disagreeable results accrue from the external use of cantharides, and I think it desirable that everyone should be aware that this preparation is now doubled in strength.

Some preparations, although they are important, are not used in practice in this country, such as alcoholic extract of belladonna. Others, such as *tr. cimicifagæ*, &c., although altered in strength, are not changed in dose, and, therefore, are not likely to be a cause of danger if the committee knew their therapeutics well.

Such alterations as *aqua chloroformi* are unimportant, and I do not think it matters whether the compounder uses the old or new preparations.

I am still of opinion that my sixteen cautions will answer all useful purposes.

I am, Sir, yours &c.,

CHAS. R. C. TICHBORNE.

[To a large extent we agree; but the following are stronger preparations not mentioned by Professor Tichborne:—*Tr. belladonnæ*, *tr. podophyll.*, *tr. scillæ*, *tr. senegæ*, *tr. sennæ*, and *urg. acotinæ*. Weaker:—*Ext. belladonnæ* alcohol., *ext. nucis vom.*, *ext. opii liq.*, *ext. physostigmat.*, *inj. apomorph. hypoderm.*, *tr. acotinæ*; seven other tinctures are weaker, and twelve ointments. Reference to the two B.P.s will show to what extent the preparations have been weakened or strengthened. Our forthcoming DIARY contains complete lists, which occupy about a page.—ED.]

The P.A.T.A. Explanation.

SIR,—I can scarcely conceive a more flattering tribute to the P.A.T.A. than that unconsciously afforded by "Fair

Trade" in last week's number. His object is to prove that the sale of many articles hitherto in popular demand has been seriously affected by the adhesion of the proprietors of them to the P.A.T.A. What he does prove is merely that the sale of these articles by his collection of stores has declined. He does not, or will not, see that this is the logical outcome of such a movement. People go to places like his, not because they like them, but because they think they can get things cheaper there than elsewhere. When they find out, as is the case with P.A.T.A. articles, that this is not so, they prefer to deal elsewhere. Hence the diminishing trade of "Fair Trade" and his friends. We may take it for certain that, were the total sales of these articles calculated, they would be found to be as high as ever, for the British public does not stick at a halfpenny when it sets its mind on a thing. It is, therefore, the statement of sales by the proprietors only of P.A.T.A. articles which are of any value. And I would ask the latter whether it is not worth while to cultivate the good will of the great army of distributors, by seeing they have a decent return on their outlay, rather than play into the hands of those who make so little on these things as to consider them rather as an advertising outlay than a source of living profit.

I am, Sir, yours obediently,

H. R. (90/46.)

SIR,—“Fair Trade’s” statistics as to the sale of P.A.T.A. articles seem to me to prove rather that the sale of these is gradually returning to its proper channel than that it is on the decline.

My experience—and I hope that of most of my brother chemists who try to do a legitimate business—is that the sale of the principal articles on the P.A.T.A. list steadily increases.

“Fair Trade” thinks Mr. Beecham has gained more friends by his system of mutual agreements than he would have done had he placed his pills on the P.A.T.A. list. If “F. T.” refers to stores only, and “cutting” chemists, perhaps he is right, though I doubt it even then; but if the whole trade is meant the statement is too absurd for comment. These “digs,” in season and out of season, at the P.A.T.A. should only encourage its friends to stick closer and work harder for the cause. They show that it is fulfilling its mission—helping to cut the “cutter.”

Yours truly,

Stourbridge, November 8.

KASKA. (92/33.)

Kant supports the P.A.T.A.

SIR,—Mr. Beecham is evidently intensely wrath with the ingenious chemist who distributed a box of his own pills gratis with each pennyworth of the St Helens Heal-alls. The proprietors of patent medicines, sold by distributors without profits, sometimes complain as if their rights had been interfered with. But the proprietor of a profitless patent has no rights, as against the distributor thereof, because he discharges no duties towards him. The duty of the proprietor is to see that the distributor has a fair profit for handling his goods. If he fails in this duty, he can claim no rights.

“Act,” says Kant, “in such a manner as you would wish to be law universal.” No man could wish that to sell without profit should be the law universal governing his trading operations. If he did so, he could not perform his duty to himself, to his creditors, to his family, or to the State. Hence to do so is immoral. The pressing exigencies of social and commercial conditions may compel him to do so on certain occasions; but it should only be as a last resort, unwillingly, under protest, and when he has exhausted every legitimate means not to sell.

If your readers would but consider the question in its philosophical aspects, they could soon convince themselves that to sell goods without profit is contrary alike to morals and to business principles.

Yours truly,

North Earl Street, Dublin,
November 4.

J. C. MCWALTER.

Manchester Pharmaceutical Association Trade Committee.

SIR,—Will you kindly allow me to correct a slight error which appears in your issue of November 5, on page 750?

The meeting there reported should not have been called one of the Manchester Pharmaceutical Association, as it was a meeting of a special committee elected by the Council of the Association to attend exclusively to trade matters, as explained in your report. By inserting this correction you will relieve the minds of certain members of the said Association, who are (and others who may be) under the impression that they have been neglected by not being called to what your report implies was a general meeting.

Faithfully yours,

Market Street, Manchester.
November 8.

WALTER GIBBONS.

Blackburn Apprentices.

SIR,—The gentleman who adopted the disagreeable *nom de plume* under the above heading in your last week's issue assumes too much, or rather, makes me appear to do so.

I did not say I would like power to erase the names of qualified assistants who prostitute themselves for the benefit of unqualified limited companies, but I merely pointed out that such a question was a very proper one for discussion by the members of our local Association.

I am to a large extent of the same opinion as himself with regard to the deplorable condition of pharmacy in Blackburn, but I do not agree with the inferences he draws from the fact; nor do I think this town is worse than other manufacturing-towns in Lancashire.

It is however, the duty and desire of the North-East Lancashire Chemists' Association to endeavour to bring about a better state of affairs.

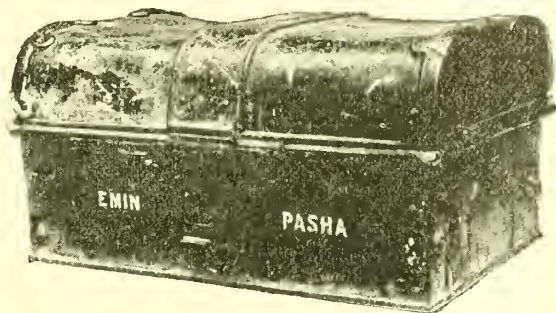
Blackburn, November 8.

Yours truly,

WILLIAM HOLT.

Adventures of a Tabloid Medicine-chest.

SIR,—A most interesting tabloid medicine-chest, of which we send you a photograph, has just been returned to us by an officer of the Congo Free State who recovered it from natives near Kenia, in the Aruwhimi dwarf country. This



chest formed the last medical equipment of Emin Pasha, Gordon's governor of the equatorial Soudan, and was supplied to him just before he started on his last expedition to Central Africa. The following acknowledgment of the receipt of this tabloid medical equipment was sent by the Pasha:—

Messrs. Burroughs, Wellcome & Co., London.

GENTLEMEN,—I found the medicine-chest you forwarded me fully stocked. I need not tell you that its very completeness made bound my heart. Articles like those could not be made but at the hands of the greatest artists in their own department. If anyone relieved from intense pain pours out his blessings, they will come home to you.

I should like to expatiate somewhat longer on the intrinsic value, but sickness preventing me to do so, I wish you to believe me,

Yours very faithfully,

(Signed)

DR. EMIN PASHA.

The case accompanied him throughout his subsequent travels, and was taken by Arabs after his massacre at Kibungi in October of 1892. After passing through many adventures it was recaptured by Baron Dhanis, commandant of the Congo Free State troops, after the battle of Kasongo, in which the Congo Arabs were defeated. Emin Pasha's journal and a quantity of his property was recovered at the same time, but the tabloid compressed drugs which had been in the chest were found to have been removed. The chest

was subsequently stolen by natives, and, before its final recovery, was used as a village treasury-chest.

Yours very respectfully,

BURROUGHS, WELLCOME & Co.

The Minor.

Franciscum (82/24) writes a brief letter, in which he manages to pack several offensive charges against the examiners which are mere matters of opinion. It is well in a discussion of this nature to remember that examiners have characters as well as feelings, and, while we do not hesitate to expose injustice, we cannot publish statements reflecting on the capacity and honour of individuals which are not substantiated by strong evidence. "*Franciscum*" says:—"The nervous examinee is harassed [in the oral examination], and, although he may be well up in all the subjects of the exam., fails because he has not the faculty of expressing his thoughts orally. I have personally known students who have been successful in the honours stages of chemistry, mathematics, botany, and magnetism and electricity, fail in these subjects in the Minor. What is the cause? I leave this question to be answered by those who are responsible for the oral portion of the Minor exam."

Radix (87/37) got the following work to do at the London "Minor":—

July.	October.
Lin. terebinth.... 3iv.	Emp. resinæ 6×6 on leather.
Camphoræ	Zinci sulph. ... gr. iij.
Sulph. sublim. aa ... gr. j.	Ext. gent. ... gr. xviii
Pt. pil. j. Mitte xxiv.	Pt. pil. vj. Varnish.
Cocainæ ... gr. iij.	Ung. chloroformi ... 3j.
Ol. carbolicæ 2% ad ... 3ij.	Ol. terebinth. ... 3iv.
Pot. bic. ... 3iss.	P. g. acaciæ ... q.s.
Ac. hydrocy. dil. ... mxij	Aq. ad ... 3iv.
Aq. ad ... 3vj.	Sig: The Emulsion.
3j. with a powder.	Pot. bicarb. ... 3j.
P. acid. cit. ... gr. xv.	Ammon. carb. ... 3ss.
	Spt. amm. arom. ... 3iss.
	Spt. chlorof. ... 3j.
	Tr. aurant. ... 3ij.
	Inf. gent. co. ad ... 3vj.
	3j. ter die c. p. acidi citrici
	q.s. Mittevj.

SIR,—There is no doubt many young men present themselves for examination who are far from being fit for such an ordeal, but there are also many who have attended evening classes, a systematic course of study during their apprenticeship, and who walk off with college-medals and certificates, and yet, when they go up for the Minor, frequently come down. It is ridiculous to suppose that out of every hundred candidates seventy are incompetent. Where, in my opinion, the real fault lies, is to require a man to go through subjects which he has passed in before. As a candidate may pass all the subjects save one, and get full marks in them, is it fair that he should be compelled to go through all again and face the seven to three chance of failing in what he has proved himself to be proficient in?

I have faced the examiners four times, and, as far as I am concerned, I must say that, as a body, they treat candidates with respect and consideration, though I once met one to whom this would not apply, for his object seemed to be to get as much amusement out of the discomfiture of the candidate as possible. The last time I went in I failed in prescription-reading, after having passed it three times previously. I have always succeeded in getting through the first day. I have no doubt that if the examination were divided so that candidates could take two subjects at a time, and have one examiner to question and another to mark, there would be a considerable increase in the passes and a decrease in tricky and pet questions. It would seem, however, that this is not what the Society would like, for the present system is a great source of revenue, and that is the main point with them. They do not consider the interests of the candidates either before or after qualification. What becomes of the rejected ones? Surely there are a few good pharmacists and business men amongst them. In my case, I have bought a nice business, converted myself into a limited company, keep a qualified man, and am doing well—a great

deal better than many that are qualified—and this conversion cost very little more than the fee to have a "shot." Some may think this a not very dignified position; but I consider the Society has had enough of my savings.

Yours faithfully,

October 29.

LIMITED COMPANY. (82/63.)

SIR,—I think the present an opportune moment to revive the agitation in favour of a written examination. It is a notorious fact that, as at present conducted, the examination is a lottery pure and simple. I could enumerate many instances where the best of students—medallists and prize men of their colleges—have presented themselves at Galen Place, and been plucked, while students who have obtained a superficial knowledge of their subjects, and who have been regarded by their fellow-students as the duffers of the college-class, are frequently successful. The chief reason why the Pharmaceutical Society refuses to adopt the written examination is that the Society is financially dependent upon the fees arising from the examinations, and if the written examination was adopted the uncertainty and chance attending the present method would be thereby either reduced to a minimum or abolished.

I know of no other agency which has done greater service in driving both qualified and unqualified assistants into the services of drug-store companies than the Pharmaceutical Society of Great Britain. Referring to the calamitous result of the October Minor examination, I think, after reading the experiences of some of the lucky sixty-six, that they owe their success in a far greater measure to the easy examination that they obtained than to any superiority on their part. The present system is fatal to all nervous men, however well prepared, and a perfect boon to those whose knowledge is in inverse ratio to their boldness and self-confidence. Mr. Lacey in his letter rightly contends that it is the duty of the examiners to weed out those candidates with a superficial knowledge of their subjects. But can it be done under the present system? JUSTICE. (86/32.)

[We have cut out a large part of "Justice's" letter which enlarges upon the Pharmaceutical Society's money matters.—*Ed. C. & D.*]

Dispensing Notes.

This section is intended for the elucidation of dispensing difficulties. Subscribers and their employes may contribute to it, criticising any of the following notes or contributing notes on prescriptions which they have found to be of unusual interest.

A Lanoline Difficulty.

SIR,—Will some of your readers please state how the following can be made? It is said to have been dispensed, but nothing has been said about its appearance.

Yours faithfully,

DISPENSER. (76/16.)

Lanolin	...	...	...	...	100
Glycerin	...	...	...	...	30
Spirit	...	...	...	...	30
Ess. rose	...	...	...	...	3

Borax and Glycerin in Lotion.

SIR,—The following prescription was handed in to-day:—

Sodii bicarb.	...	...	...	...	5ss.
Sodii bibor.	...	...	...	...	5ss.
Glycerini	...	...	...	...	3viij.

Ft. lotio.

On mixing the soda with the glycerin and borax it strongly effervesced. Should the soda be omitted, or the mixture heated until all the carbonic-acid gas is driven off?

Yours, &c.,

JASPAR. (72/3.)

[Gently warm until the liberated boric acid is neutralised.]

Hyd. Perchlor. and Iodine Injection.

SIR,—The injection containing mercuric chloride, methylated spirit, and decolorised tincture of iodine (*C. & D.*,

October 22, 1898, page 682), which I made three days ago, remains, as at first, quite clear. I had some tincture which was made about three months ago. This I considered fortunate, for I have some recollection of the difficulty I had in dissolving the iodine in the spirit according to the formula of the B.P.C. I was impressed at the time with the necessity of a quicker method, and hope some dispenser will be able to give one.

Another tincture was also used—that made with ammonia and sodium hypophosphite. It was equally satisfactory.

Yours faithfully,

October 25.

FASHODA. (77/32.)

The Incompatible Mixture.

SIR,—I observe that "Incompatible," after following the *modus operandi* of Mr. Taylor and others, still finds himself in the same predicament, and invites further discussion on the matter. I have dispensed the prescription, and submit my mode of procedure. I dissolve the salts sodii bromid. and sod. biborat. with 4 oz. of water. Next, I prepare a fresh mucilage of pulv. gum. acacie, in which I incorporate the liquid extract of ergot, chloroform-water, and remaining water. I then gradually add this to the salts solution, giving the whole a thorough good shake. The result is a satisfactory and presentable mixture. I have a bottle which I prepared a fortnight ago; it still retains its good appearance, and does not present the least sign of decomposition.

Yours truly,

Kingston, Jamaica, W.I.,
October 8.

CHAS. A. R. FRANCE.

76/49. *Ajar*.—Two-minim Creosote Pills.—See *C. & D.*, July 31, 1897, page 218, and November 27, 1893, page 853.

Legal Queries.

We do not give legal opinions by post. Information regarding most legal matters in connection with pharmacy will be found in THE CHEMISTS' AND DRUGGISTS' DIARY, and in "Pharmacy and Poison Laws of the United Kingdom," and Alpe's "Handy-book of Medicine-stamp Duty."

82/22. *Crumpsall*.—We do not think there has ever been any decision as to a proprietary right in the title "Blood-mixture." An action in respect to it was commenced a number of years ago, but was settled without trial. The title is not one, we should think, that could be registered, and the only question that could be tried would be whether anyone else using it would be so likely to deceive the public into believing they were getting someone else's mixture that an injunction was reasonably necessary.

83/16. *Hants*.—The Medical Council would certainly not consider that registration as a dentists' company conferred any qualification which would make it less objectionable for a doctor to assist by administering gas. (2) You can only negotiate with your landlord. No one can compel him to grant you a renewal of your agreement if he does not choose to do so.

85/49. *Sceptic*.—No magistrate is bound by the foot-note in the B.P. indicating what is understood by seidlitz-powders; nor would he be any more bound if the title appeared as a synonym instead of in the foot-note. The Pharmacopœia is not a standard; it is only evidence. But it is a fact that a number of convictions have been obtained in respect to seidlitz-powders which did not correspond to the B.P. formula for pulv. sodæ. tart. effervescens.

86/9. *R. O. H.*—If you sell a quinine-wine as such without any indication that it is different from the B.P. wine, you might be convicted under the Sale of Food and Drugs Act. But this would not be the case if you sold it as a proprietary article. That you sold it under a wine-licence would not be any defence in a prosecution under the Sale of Food and Drugs Act.

27/10. *Master*.—The Shop Hours Act applies to Ireland, but it does not require that you should give your apprentice a half-holiday on Saturdays. It enacts that you may not

employ a young person (a person under 18 years of age) more than seventy-four hours per week, and that time is to include meal-times. As a rule, you cannot recover from a servant the damages for breakages. Perhaps, in the case you name, where the servant went out of her way to meddle with things she ought not to have touched, you might, but it is doubtful.

84/65. *Morphia*.—The cod-liver-oil emulsion is rendered liable to medicine-stamp duty by the advertisement on the circular. A proprietary right is claimed in it by your name being in the possessive case.

88/25. *L. W. W.*—The statement that the medicine is "prepared only by" yourself constitutes a claim to a proprietary right, which renders the article liable to medicine-stamp duty. Otherwise the label would probably pass; but before using it you had better send it to Somerset House for their endorsement. You will find instructions in the *DIARY*.

89/43. *Erica* agreed to take an indoor apprentice for three years at 40*l.* premium. The youth went for a month's trial, but decided not to follow the business. The chemist claimed from the youth's parents 2*l.* for board and lodging. Can he maintain that claim? No. It was decided in the case of *Earran v. Burghart*, 3 C. & P., 381, that where an apprentice goes on trial for a month or longer, the intended master cannot charge for board and lodging; and, practically, the same principle was upheld in the cases of *Wilkins v. Wells*, 2 C. & P., 231, and *Harris v. James*, 31 L.J., Ex., 248.

Miscellaneous Inquiries.

We reply to subscribers and their employes only upon subjects of interest to other readers generally. When more than one query is sent write each on a separate piece of paper. When a sample accompanies a query full particulars regarding the origin and use of the sample must be given, and it must be distinctly labelled. Queries are not replied to by post, and those sent anonymously are disregarded.

67/67. *Lines*.—(1) Scott's "Urine Testing," 1*s.* 6*d.* (Baillière). (2) Churchill's "Dictionary of Medical Terms," 2*s.* 6*d.*

67/43. *Borax*.—A good list of doses of official and unofficial drugs is given at the end of Martindale's "Extra Pharmacopœia." We cannot recall any similar list separately published.

63/32. *Senior*.—A reprint of a lecture by Dr. S. Rideal, obtainable from Parkes Museum, Margaret Street, W., will give you the details of the treatment of sewage by the bacteria-process.

62/74. *W. B.*—To make Sloe-gin put $\frac{1}{2}$ oz. powdered sugar-candy in a wine-bottle, fill with sloes, and then with gin. Keep the bottle well corked for six months, when the gin will be ready for use.

67/25. *J. B.*—You ask an immoderate lot of questions some of which do not come within the scope of this column. (1) The essential constituents of Honey are varying quantities of dextrose, lævulose, and sometimes cane sugar, besides small quantities of water, wax, colouring-matters, aromatic substances, phosphoric acid, and nitrogenous compounds. The average percentage composition of sixty specimens was found by Sieben to be: dextrose, 34.71; lævulose, 39.24; saccharose, 1.08; water, 19.98; and non-saccharine matter, 5.02. (2) Liq. Santal. Rub., used for colouring liquid dentifrices, is made by macerating and percolating 2 oz. of red sanders-wood with 1 pint of 60-per cent. alcohol. (3) The Fly-gum recipe is all right, but there is an art in making it. The consistency of the boiled-linseed oil is rendered thicker by boiling. (4) Raspberry-leaves contain a tannin, which accounts for their popular use in diarrhœa.

63/49. *J. W. B.*—Beginners' books on the microscope.—Cross and Cole's "Modern Microscopy," 2*s.* 6*d.* (Baillière); White's "The Microscope and how to Use it," 2*s.* (Sutton).

68/9. *Ferratin* (China).—(1) An American pint is 16 fl. oz.; the sign Oj. on American prescriptions must, therefore, mean 16 oz. (2) In the preparation of some aniline-dyes arsenic acid is used, and this has given the dyes a reputation of being poisonous when in reality they are not, especially in the small quantities used for colouring drinks. Schultz and Julius's "Systematic Survey of the Organic Colouring-matters," 2*ls.* (Macmillan), is the most concise book on aniline-dyes.

58/43. *H. P.*—(1) Flavouring-essences from the Fruit are made by macerating 5 lbs. of fresh fruit with 1 pint of spirit for ten days and filtering. They are often strengthened by adding 5 per cent. of artificial essence, and improving the colour with magenta. (2) "Palm yellow" is a name given to oil-soluble aniline yellow.

74/4. *Riff* (Barcelona).—There is no book published devoted to the manufacture of soap-powders, but in "Pharmaceutical Formulas" you will find a concise account of the method adopted and some recipes. The samples you send consist of curd-soap, crude carbonate of soda, and silicate of soda, and are similar in composition to the kinds usually sold in England.

65/63. *F. Bros.*—We cannot find anything special about the skin-tonic. It consists of a little calamine suspended in glycerin and water.

67/4. *J. A. D.*—Your sample appears to be mislaid. Was it properly labelled?

72/2. *Speravi*.—The Golden Ointment you send is a soft resin-ointment with a little scent in, and is not what is commonly supplied when golden ointment is asked for.

75/29. *Unguentum*.—The Skin-ointment which has a "marvellous effect in skin-affections" is in composition like the following:—

Lanolin.	...	...	...	3vj.
Ung. zinci	...	...	...	3j.
Ung. hyd. amm.	...	...	...	3j.
Liq. carbonis deterg.	...	...	...	℥xv.

M.

76/12. *J. S.*—We know nothing of the "magnetic" truss you refer to, but should want to know a good deal about it before paying the price asked.

67/12. *Eucalyptus*.—Powder for Scour in Calves.—The following is the formula for the powder you send:—

Sodii carb.	...	...	...	3ij.
P. catechu	...	...	...	3j.
P. cort. quercus	...	...	...	3ij.

Mix. Divide into six doses.

A dose to be given in gruel, and repeated if necessary.

53/44. *Amicus*.—(1) Your sample of Cleansing-powder has the following approximate composition:—

P. sod. sulph.	...	...	...	3iv.
Sulph. sublim.	...	...	...	3ij.
Ferr. peroxid.	...	...	...	3ij.
P. fœnugræc.	...	...	...	3ij.

Make one powder.

A dose to be given morning and evening in gruel. (2) The Anodyne Liquid is not amenable to accurate analysis. The chief ingredient is, however, ext. belladonnæ.

Information Wanted.

The Editor will be obliged for replies to the following from any who can furnish the information.

91/61. Makers of perfume-fountains.

82/15. Makers of pewter syringes.

91/63. London address of Brill's sea-salt.

83/27. Wholesale agents for Naveau et Cie's French floats.

Trade Report.

Notice to Retail Buyers.

It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk, and, for crude drugs, without charges. For fuller particulars see the article "Lowest Trade Terms" in THE CHEMIST AND DRUGGIST, March 19, 1898, p. 473. C.i.f. quotations are for London unless when otherwise stated.

Buyers of essential oils are particularly requested to note that low quotations, especially for Sicilian essences, are rarely, if ever, accompanied by guarantee of genuineness.

42 Cannon Street, London, E.C.: November 10.

YESTERDAY was Lord Mayor's Day. His show clashed with the drug-show, and disturbed business. Some rather important changes have taken place during the week, which cannot be conveniently summarised unless in the brief style of the subjoined table:—

Higher	Firmer	Lower
Camphor (refined)	Ammonia sulphate	Aloes, Cape
Cinchona	Aniseeds	Buchu
Dragon's-blood	Benzoin (Sumat.)	Caustic soda
Ergot	Canary-seed	Ipecacuanha
Jalap	Cardamoms	Nux vomica
Mercurials		
Pepper, white		
Quinine		
Senega		
Senna		
Sulphonal		
Vanilla		
Vermilion		

Cinchona is in a very strong position, and quinine has promptly responded to it, German makers having withdrawn their quotations *pro tem*. Sulphonal has more than doubled in price, owing doubtless to the difficulties which surround its manufacture, the base, mercaptan, being one of the vilest-smelling substances on the face of the earth.

Heavy Chemicals.

The lately reported keen competition between makers by rival processes continues, and in some cases actual values are not easy to arrive at. Certain it is, however, that as a whole there is no tendency towards advancement. On the Clyde and in the Lancashire district a fair all-round business is passing, whilst on the Tyne matters have taken a quieter tone, and shipments to the Baltic are now about over for this season. Export trade is far from being satisfactory; the quantity of alkali exported during October this year was more than 22 per cent. less than in the corresponding month of last year. Bleaching-powder this year is also much lower than last. Under these circumstances it is pleasing to note that the general demand for the home trade continues to be on the whole very satisfactory, most of the consuming trades being busy. This is particularly the case with paper-makers, who have lately experienced a much heavier demand for the manufactured article. Glass-makers too are busier, whilst calico-printers are practically all working full time, and in many cases overtime. Bleachers and dyers are also well employed. Soap-makers are fairly busy. As is usual at this time of the year, the paint and colour trade has taken a quieter tone; still, seeing that the building trades are so exceptionally brisk, they must have a fair amount of orders in hand.

ALKALI PRODUCE.—Caustic soda is easier, particularly for prompt delivery, owing to accumulation of stocks. Price for forward is also on the easy side, although makers are not much inclined to book contracts on easier terms. Bleaching-powder is very low and unsettled; for forward, nearest figure is nominally about 4*l*. 7*s*. 6*d*. for softwood casks on rails. Chlorate of potash, 3*d*. 4*d*. and next year, 3*d*. 4*d*. to 3*d*. 4*d*. Chlorate of soda, 3*d*. 4*d*. Yellow prussiate unchanged and steady. Ammonia alkali unchanged, but somewhat unsteady owing to American competition. Saltcake steadily maintains its position.

COLOURS keep a fairly steady market, and are mostly unchanged. Lamp-black, according to quality, 5*s*. to 7*s*. 6*d*. per cwt.

Mineral-black, best qualities, 4*s*. to 4*s*. 6*d*. per cwt.; and ordinary quality, 3*s*. 6*d*. per cwt. Pure ivory-black, 12*s*. per cwt. Oxide of iron, finest, 20*l*.; medium, 10*l*. 7*s*. 6*d*.; common, 6*l*. 17*s*. 6*d*. Ochre, French J.C., 60*s*. to 62*s*. 6*d*. per ton; and French J.F., 6*l*. 5*s*. per ton. Ultramarine, pure, 40*s*. to 45*s*. per cwt. Umber, Devonshire, 47*s*. 6*d*. to 52*s*. 6*d*.; and Turkish, 40*s*. per cwt.

SULPHATE OF AMMONIA.—Firm. Beckett to 9*l*. 17*s*. 6*d*. Hull, London and Leith, 10*l*. Exports from Leith last week amounted to 453 tons.

LEAD SALTS AND SULPHATE OF COPPER tend a shade dearer. **TIN CRYSTALS** are firm, and are now quoted 5*d*. 4*d*.

BROWN ACETATE OF LIME continues firm, with advancing tendency.

Liverpool Drug-market.

Liverpool, November 9.

CASTOR OIL.—Good seconds Calcutta easier, at 3*l*. 1*d*. to 3*l*. 1*d*. from the quay, having been taken by holders for arrival parcels; 3*l*. 1*d*. is the nominal price in store. French has hardened slightly in consequence of higher quotations from abroad, and is held at 2*l*. 1*d*. for first-pressure. Good seconds Madras easy at 2*l*. 6*d*. but the market is sluggish.

GUINEA-GRAINS.—Further sales have been made at 50*s*. per cwt. Holders talk of much higher prices.

GUM-ARABIC SORTS.—A small parcel of soft Soudan sorts has arrived, and 75*s*. per cwt. is asked.

QUILLARIA-BARK.—Firm, with sales at 18*l*. 5*s*. per ton for quality as imported.

CANARY-SEED.—Sluggish and little business this week. Values stand at 26*s*. 6*d*. to 28*s*. per quarter for good bright Turkish.

CHILLIES, SIERRA LEONE.—The market is now almost bare of anything approaching fair quality. Values range from 37*s*. 6*d*. to 45*s*.

KOLA-NUTS continue to move off slowly, 29 barrels being sold in one line at 1*l*. 1*d*. for good dry African.

CREAM OF TARTAR.—Slightly firmer for better grades owing to stronger reports from abroad.

BRESWAX.—Stocks are accumulating, and prices tend lower. Chilian is held for 6*l*. 5*s*. to 7*l*. 10*s*. per cwt.

HONEY.—Firmly held, although there is little actual business to report.

SPERMACETI, CHILIAN.—A recent arrival of 40 cases was offered at auction, and realised 1*s*. 1*d*. per lb. in one line. Holders of the remaining stocks will talk of 1*s*. 3*d*. for good white quality.

ANISEED, RUSSIAN.—Firmly held at 16*s*. to 18*s*.

German Drug-market.

Hamburg, November 8.

Business in general has been quiet during last week, and there is little doing, although several articles show an upward tendency.

AGAR-AGAR is firm and dearer at 330*m*. per 100 kilos.

STAR-ANISE is again dearer, and is now held for 285*m*. per 100 kilos.

BALSAM (PERT) is steady at 17*m*. per kilo.

CITRIC ACID is quiet at 250*m*. per 100 kilos.

CAMPHOR (REFINED) quiet at 245*m*. per 100 kilos.

CUMIN.—New Malta is very scarce, and firmly held at 56*m*. to 58*m*. per 100 kilos.

ERGOT OF RYE is not offering, and stocks are almost exhausted.

IPECACUANHA.—Rio is very scarce and not offering.

QUININE is firm and tending upward. The manufacturers do not seem to care to sell large quantities. To-day's price is 28*l*. *m*. per 100 kilos.

WORMSEED is dearer, at 42*m*. per 100 kilos.

WAX, JAPAN, is firm, at 66*m*. per 100 kilos. Carnauba quiet, at 66*m*. to 125*m*. per 100 kilos., according to quality.

MENTHOL.—Steady, at 14*l*. *m*. per kilo.

OILS.—Cod-liver unchanged. Castor steady; first-pressing, in barrels, 56*m*. on the spot and 54*m*. per 100 kilos. for forward delivery. Russian anise firm, at 13*l*. *m*. per kilo. Star-anise easier, at 14*l*. *m*. per kilo. Peppermint: HGH, 5*l*. *m*. per lb.; Japan oil firm, at 7*l*. *m*. per kilo. Caraway firm; 0-910 at 9*l*. *m*. to 9*l*. *m*. per kilo.

German Herb-crops.

From a German correspondent we learn that the bad weather in the spring months affected not only chamomiles, but cassie-flowers, and the unremunerative prices for arnica-flowers checked the gathering of these. The verbascum-crop has been much below the average, and peppermint has been spoiled to a great extent by the rain. Millefoil flowers and leaves and violets are scarce. The increased attention given to cultivation of narcotic plants (belladonna, henbane, &c.), and the demand from abroad, have resulted in good prices, which are well maintained this year. Medicinal roots were over-produced in Thuringia and other districts in 1897, but crops have decreased this year. In 1893-94 exceptionally high prices were reached—*c.g.*,

Levisticum-root cost then 225m. per 100 kilos, now it is 30m.; angelica-root was 110m., now 35m.; valerian-root 120m., now 75m. These figures explain the present unwillingness to cultivate the roots. Nevertheless, the exports of herbal remedies of all kinds from Germany this year are quite up to the average.

Cablegrams.

HAMBURG, November 10. 12 20 P.M.:—Business is quiet here. Refined camphor is 245m. per 100 kilos., and quinine, though firm, is unaltered in price. Menthol is firming steadily, and an advance is probable. Japan wax is easier, at 64m. per 100 kilos.

NEW YORK, November 10. 3.5 P.M.:—I have to report a busy week since my last cable: the activity has not been disturbed by the elections, and the market closes in a buoyant state. Opium is firmer, at \$3.55 per lb. The domestic manufacturers of quinine sulphate have, in sympathy with European advices, advanced their prices to 22c. per oz. Other important advances are Angostura bark 10c. per lb., Pareira-brava root 10c. per lb., and ergot of rye (Russian) 30c. per lb. The last has not reached the highest limit. Damiana-leaves are easier at 13c. per lb. Mexican sarsaparilla continues scarce, and none is to be had under 9½c. per lb. Jalap is in a strong position; the stock is held by a few, and they will not let any go under 14c. per lb.

London Markets.

ACID, PHOSPHORIC.—The convention-price is 9¾d. per lb. net for sp. gr. 1.750 in carboys, delivered free, but we understand there are outside sellers at slightly under this figure.

ARROWROOT.—The price of St. Vincent arrowroot has risen considerably since the hurricane—from 2½d. to 3d. per lb. This rise is due, however, principally to speculative purchases, the damage to the crop not yet being definitely ascertained. Some of the arrowroot estates were badly wrecked, but, until fallen trees and *débris* have been removed, it is impossible to estimate the full effect of the storm.

BISMUTH SALTS are firm, but the change which has been talked about appears to have dropped for the time being. The principal salts are quoted as under: subnitrate 4s. 10½d., subcarbonate 5s. 5½d., oxide 7s. 4½d., and salicylate 5s. 6½d. per lb. in 1-cwt. lots.

CINCHONA.—The small supply of cinchona offered at auction on Tuesday met with a good demand, and practically all was sold at, or after the auction, at about 15 to 20 per cent. advance upon the previous London sales, the average unit obtained being 1d. per lb. for quinine, and 2d. for cinchonidine. The offerings were as follows:—

	Packages offered.	Packages.
South American cinchona...	591 of which	500 were sold.
African cinchona ...	183 "	167 "
Ceylon cinchona ...	125 "	125 "
East Indian cinchona...	32 "	7 "
	931	799

The following figures represent the approximate quantities of bark purchased by the principal buyers:—

	Lbs.
Agents for the American factory ...	53,494
Agents for the Mannheim and Amsterdam factories ...	5,140
Agents for the Frankfort-on-Maine and Stuttgart factories ...	5,040
Agents for the Brunswick factory...	4,080
Agents for the Paris factory ...	2,772
Druggists, &c. ...	7,084

Total quantity sold ... 77,610
Bought in or withdrawn ... 30,574

Total quantity offered ... 108,184

The following prices were obtained:—South American fair Bolivian cultivated quill, 5d. and 5½d. to 6½d. per lb.; soft Colombian, 4 bales realised 2½d.; African, fair to good quill, part broken, 4½d. to 5d., and thin broken quill, 2½d. per lb.; East Indian, crown renewed chips, 3¾d.; Ceylon, Succirubra

bold stout quill, 3½d., fair to good natural quill chips, 3¼d. to 3½d., renewed chips, 2¼d. to 2½d., and hybrid original stem chips, 4¼d. per lb.

The following are the dates fixed for the London bark auctions next year:—January 24, February 28, March 28, April 25, May 24 (Wednesday), June 20, July 18, August 15, September 12, October 10, November 14, and December 19.

The exports from Java from July 1 to August 31 were:—

	1898	1897	1896	1895
Government (Amst. lbs.)	236,186	113,577	138,347	92,336
Private (Amst. lbs.)	1,979,064	1,462,287	1,972,500	1,133,446

Since the auctions, and without reference to the offerings of pharmaceutical bark referred to later in this report, the whole of the bought-in bark has been cleared. It has also transpired that the private purchases of bark at Amsterdam since last week have been considerable, and there are ample indications that the position of bark is becoming highly favourable to an early advance in the price of quinine. Already the alkaloid-market has responded to that symptom.

CAMPOR (REFINED).—The inevitable advance in price was made on Monday last; the English refiners raised their prices by 1d. per lb., bells and flowers now being 1s. 4¼d. per lb.; 4, 8, and 16 oz. tablets, 1s. 5½d.; 1 and 2 oz., 1s. 7d.; ½-oz., 1s. 7½d.; and ¼ and ½ oz. tablets, 1s. 8d., with the usual reduction for quantity. The German refiners have not altered their prices, as they think they may be able to get crude camphor cheaper, but the latter market shows not the slightest sign of breakdown.

GLYCERIN.—Re-distilled continues brisk, although German crude is easier. A large amount of business has been done since our last in English re-distilled at the price then quoted, 50l. 15s. per ton in tins for 10-ton lots; 53l. is the price for quantities under the ton. No change in the German, except that the makers of the "Eagle" brand are not selling for the moment.

GOLDEN SEAL (HYDRASTIS).—Cabled advices from New York since our last state that the price of this drug is still advancing, 2s. 2½d. per lb., c.i.f., being the lowest quotation.

HYDROGEN PEROXIDE.—Ten vols. is 1s. 8d. per gallon by the carboy.

HYPOPHOSPHITES.—The calcium and sodium salts are quoted at 3s. 5d. per lb. net in 1-cwt. lots.

MARSHMALLOW.—A rise of 25 per cent. has taken place in Germany owing to small stocks of old root. The new, however, is close at hand, and lower prices are expected later. There is little sale here for this root, which is obtainable at 35s. to 40s. c.i.f. for ordinary, and 55s. for fine cnt.

MERCURIALS.—In consequence of the advance in quicksilver, manufacturers of mercurial salts agreed on Friday last to raise prices 1d. per lb. all round, and quotations are now as follows:—

	Under 1 cwt.	1 to 5 cwt.	5 to 10 cwt.	10 cwt. and more
Calomel ...	s. d. 2 8	s. d. 2 7½	s. d. 2 7	s. d. 2 6½
Corrosive sublimate ...	2 4	2 3½	2 3	2 2½
Red precipitate ...	3 0	2 11½	2 11	2 10½
White precipitate	3 1	3 0½	3 0	2 11½
Mercury, with chalk ...	0 10	0 9½	0 9	0 8½

OIL, COD-LIVER.—There is more inquiry, and a fair business is being done, but the stocks of old oil still keep coming into the light of day, and restrict sales of 1893 oil.

BERGEN, November 5.—A dull market without any alteration, sales being very small. The quotation is also unchanged at 75s. per barrel, f.o.b. terms, for best Lofoten medicinal oil. The exports from Bergen have been 7,168 barrels, against 9,212 barrels at the corresponding period of last year.

OIL, GERANIUM.—French is quoted at 34s. per lb., c.i.f.

OIL, JAPANESE FISH.—Very scarce, and prices are reported higher from Japan—viz, 13l. 10s. per ton, c.i.f., in cases.

OIL, LAVENDER.—Mont Blanc, of guaranteed purity, is obtainable at 5s. 7d. per lb., c.i.f.

OIL, LEMON.—Quiet, at 3s. 9d. to 4s. per lb. on the spot. Contracts for new crop can be made at 3s. 6d., c.i.f.

OIL, MIRBANE.—Quiet, at 6½d. per lb.

OIL, TURPENTINE.—American, on the spot, is steady at 26s. 6d. to 26s. 9d.

OPIUM.—This has been a very dull week, and values are unchanged. There were two lots of druggists' offered in the drug-auctions, which see. The market closes easier.

SMYRNA, October 28.—Since my last the following sales have been made:—130 cases new Dutch grades at the parity of 10s. 8d. per lb., and 10 cases old Karahissar at 9s. 10d. and 10s. 2d., c.i.f. European ports. Of the 130 cases, 80 were returned as not being up to the Dutch Government standard. The arrivals amount to 1,039 cases, against 2,790 last year.

CONSTANTINOPLE, November 5.—The market closes quiet, but steady, the sales being 20 cases, old and new druggists', at 9s. 8d. and 10s. 3d. per lb., f.o.b., respectively. The autumn sowings up to the present are, owing to lack of rain, exceptionally restricted compared with former years.

PODOPHYLLIN.—Soluble brown or yellow B.P. resin is quoted at 9s. 8d. per lb., c.i.f.

POTASH CHLORATE remains firm at the recent advance to 3½d. per lb. for crystals, and is reported scarce for early delivery.

POTASH PERMANGANATE.—The market continues firm, and there is nothing to be had under 48s. 6d. per cwt.

QUININE.—German makers have withdrawn quotations. Early in the week some 30,000 oz. of Zimmer's brand was sold at 10d., but that make was also withdrawn temporarily, but has since been sold at 10½d., and 11d. is wanted, which may be taken as the lowest quotation for German sulphate. Business has been done in second-hands at 10½d. for December-January delivery. The "Imperial" brand is selling at the same price, and Java quinine is 9½d. per oz. The market is exceedingly firm, both for makers and second hand holders; and it is conjectured that ere long preparations will be completed for a steady appreciation of values. American makers have advanced their prices to 22s. per oz.

SEEDS.—A good business has been done this week in *Canary-seed* at firm to rather dearer prices—Turkish and ordinary Barbary at 28s., Mazagan 30s. to 31s., Tangier 30s. to 33s. according to quality, and Spanish at 32s. to 36s. for common to middling. *Coriander* sells slowly at 7s. per cwt. *Fenugreek* is held for 9s. per cwt. *Cumin* firm at late rates. *Caranays* dull. *Anise* unchanged.

SPICES.—White *Pepper* is rather dearer, but there is not much else to note this week. There were no auctions on Wednesday owing to the Lord Mayor's Show, dealers, as a rule, being glad of any excuse to get the sales postponed. A steady business has been done privately. Singapore black *Pepper* has sold at 4½d. per lb. on the spot, and at 4½d. for January-March shipment. Tellicherry dearer, with small sales at 4½d. per lb. Penang white in demand for arrival, with sales of January-March steamer at 7½d. per lb. Singapore white, 8½d., same position. Zanzibar *Cloves* are a shade dearer; 4d. per lb. has been paid for November-December, and 3½d. for January-March delivery.

STAR ANISE.—Is firm, but without business, at 100s. per cwt., c.i.f., for October-December delivery, and 103s., c.i.f., for immediate delivery.

SULPHONAL.—The long expected rise in the price of this article happened on Tuesday, the advance being from 7s. 6d. to 16s. 6d. per lb. in contract quantities. This price is for 10-lb. lots, but a rebate of 9d. per lb. is to be allowed on the completion of contracts for 4 cwt.

SULPHUR.—Refined rolls in bags is offered at 95s. and 98s. in casks; 3-cwt. barrels are 99s. 3d.; and 2-cwt. cases, 103s. Flowers are 113s. 9d. down to 98s. 6d., according to quality; refined ground sulphur is 97s. to 98s. per 1,015 kilos, c. and f., London.

VERMILION.—Owing to the advance in quicksilver, makers have raised the price 1d. per lb., quotations now being 2s. per lb. for 300 lbs. and upwards, 2s. 1d. for 150 lbs., and 2s. 2½d. for smaller quantities.

Drug-auctions in London.

THE following is a list of the goods offered and sold publicly to-day:—

		Offered	Sold			Offered	Sold
Aconite-root.....	10	...	0	Lime-juice.....	5	...	0
Almonds, bitter ...	3	...	0	Liquorice-juice.....	50	...	0
Aloes (Cape).....	59	...	57	Liquorice-root.....	40	...	0
Curaçao.....	34	...	34	Mastic.....	23	...	0
Socotrine.....	19	...	0	Menthol.....	9	...	1
Zanzibar.....	8	...	6	Musk.....	6	...	0
Ambergris.....	3	...	1	Myrrh.....	58	...	0
Annatto-seed.....	14	...	0	Nux vomica.....	181	...	181
Asafetida.....	150	...	62	Oil, ajowan-seed ...	5	...	0
Asphaltum.....	24	...	0	anise, star.....	65	...	40
Balsam copaiba ...	75	...	15	bay.....	2	...	2
Peru.....	4	...	0	bergamot	2	...	0
Tolu.....	19	...	8	cajuput.....	10	...	0
Benzoin.....	223	...	79	camphor.....	10	...	0
Buchu.....	29	...	19	cassia.....	7	...	7
Cactus-flowers....	4	...	0	castor.....	30	...	0
Calumba.....	193	...	142	cinnamon.....	28	...	0
Camphor (refined) ..	69	...	0	eitronella.....	17	...	0
Cardamoms.....	233	...	215	cod-liver.....	105	...	100
Cascara sagrada ...	100	...	0	eucalyptus.....	42	...	0
Cinchona.....	97	...	58	geranium.....	4	...	4
Coca-leaves.....	21	...	21	lemon.....	3	...	0
Colocynth.....	16	...	0	lemongrass.....	36	...	1
Coriander.....	50	...	0	lime.....	28	...	0
Croton-seed.....	6	...	0	peppermint.....	13	...	0
Cubebs.....	50	...	0	rose (Bombay)...	6	...	1
Cumin-seed.....	83	...	20	ylang-ylang.....	1	...	0
Cuscus.....	13	...	0	Opium.....	15	...	0
Cuttlefish-bone ...	20	...	20	Orange-peel.....	23	...	0
Damiana.....	5	...	0	Orris-root.....	13	...	0
Dill-seed.....	28	...	0	Otto of rose.....	13	...	13
Dragon's-blood ...	19	...	6	Pareira brava.....	10	...	0
Ergot of rye.....	37	...	9	Patchouli.....	7	...	0
Galangal.....	5	...	0	Quillaia-bark.....	10	...	0
Galbanum.....	19	...	4	Quinine.....	1	...	0
Galls.....	38	...	0	Rhatany.....	12	...	0
Gamboge.....	46	...	18	Rhubarb.....	223	...	65
Gentian.....	97	...	0	Sandarac.....	22	...	0
Guaiaicum.....	26	...	26	Sarsaparilla.....	23	...	4
Guarana.....	1	...	0	Scammonium.....	34	...	0
Gum ammoniacum ..	14	...	0	Scammony-root ...	80	...	0
arabic.....	86	...	10	Senna.....	349	...	151
tragacanth.....	8	...	5	Senega.....	5	...	0
Honey.....	232	...	19	Squills.....	28	...	5
Ignatius-beans....	5	...	0	Strophanthus.....	7	...	0
Ipecacuanha (Cart.)	6	...	0	Tonka-beans.....	37	...	2
Ipecacuanha (Rio) ..	43	...	6	Turmeric.....	130	...	40
Jalap.....	40	...	0	Vanilla.....	545	...	500
Kamala.....	20	...	0	Vermilion.....	5	...	0
Kino.....	7	...	0	Wax (bees').....	533	...	35
Kola-nuts.....	29	...	3	Japan.....	20	...	0

ALOE.—Some very good Cape was offered and sold at lower prices—viz., 25s. for fine bright hard; ditto, but slightly dull and softish, 22s. 6d.; and ordinary dull and drossy, 19s. 6d. to 21s.; while very soft sold at 18s. to 19s. per cwt. Socotrine: Included in the two lots were four large barrels of very liquid and malodorous mixture of Mocca and Socotrine aloes, for which 40s. was wanted. Of Zanzibar a few tins of hardish pale realised 65s. per cwt.; for dull livery Curaçao 27s. was paid; and 17s. for capey.

AMBERGRIS.—The market continues in good condition, and there are fair sales privately at previous rates. In auction fine clear grey of weak flavour realised 75s. per oz.; and for black, part grey, of fair flavour, 40s. was bid and refused.

ASAFETIDA.—Lower prices were accepted to-day, 51s. being paid for fair pinky block and 44s. for medium grey, slightly pinky. For soft dull and seedy mixed, 32s. to 34s. was paid and 24s. to 32s. for dark dry and stony.

BALSAM COPAIBA.—African, Bahia, Cartagena, and Maracaibo were offered and met with little demand. Some of the African offered was sold privately; the limit in auction was 1s. 4d. per lb. For Cartagena 1s. 5d. was bid, and another ½d. would have bought.

BALSAM, TOLU.—Good hard balsam sold at 1s. 8d. per lb.

BENZOIN.—Firmer. The bulk of the offerings was Sumatra. A small lot of storax-scented Sumatra, of good

colour, and fire aroma was limited at 6' 15s., and the better qualities of Sumatras seconds, well almonded throughout, sold at 6' 10s. to 7' 2s. 6d.; ditto, but brownish, 5' 17s. 6d. to 6' 5s.; and ordinary seconds, small palish almonds, rather brown on the edge, and indifferent flavour, 4' 5s. to 5' 7s. 6d.; Siam, medium to bold detached almonds, 6' 15s. was bid and refused; low siftings sold at 45s. per cwt., and pickings at 51s. A lot of Penang, offered without reserve, could not sell.

BUCHU.—Slow of sale and lower. Leaves for which a couple of months ago 6d. was refused are now obtainable at 5d. to 5½d., and at this figure some were sold to day. For part stalky yellowish leaves 4½d. per lb. was paid, subject.

CALUMBA.—Native washed root was a feature of to-day's supplies, and one wonders if the natives use water as sparingly as it ought to be, as one or two pieces that we tasted seemed deficient in bitterness. In auction small to bold clear natural brought 19s. to 20s. 6d.; ditto mouldy, 16s. 6d. to 17s. 6d.; for another lot of native washed 17s. to 21s. 6d. was paid. Good London washed was limited, at 40s. to 45s.

CAMPHOR.—In auction fair dry crude was limited at 105s., a bid of 102s. 6d. being refused.

CARDAMOMS.—The exports from Ceylon for the week ending October 11 were 10,367 lbs., and from January 1 to October 11 were:—

	1898	1897	1896	1895
Lbs.	387,558	382,078	256,582	261,962

The Ceylon Customs-returns just published show that during 1897, 64 packages and 551,463½ lbs. of cardamoms, valued at 1,013,932 r., were exported from the island. Moderate supply in auction, Malabars almost equalling Mysore in amount, and, on the whole, were better in quality. The finest of the latter sold at a slight advance; fair bold Ceylon-Mysore, full-seeded and pale, sold at 3s. 6d. to 3s. 7d. per lb.; part split ditto, 3s. 2d.; medium ditto, 3s. 3d. to 3s. 4d.; medium to bold brown round, 2s. 6d.; pale small to medium longs, 2s. 6d. to 2s. 9d.; brown medium longs, 2s. 9d.; splits and pickings, 2s. 4d. to 2s. 9d. Ceylon-Malabars were slow of sale. Medium to bold brown fetched 2s. 11d. to 3s. per lb. Smaller sizes were not wanted. Wild native longs sold out at 3s. 2d. per lb. Brown seeds, full flavour, sold at 3s.; and for grey ditto 2s. 10d. was refused.

CINCHONA.—Good bold clean Guayaquil crown-bark sold at 8½d. per lb.; medium ditto, 6½d., down to 4½d. for thin quill. Guayaquil Loxa, thin part chippy, sold at 6d., and pencil quill at 4½d.; small to medium mossy Guayaquil, grey sold at 8d. per lb. Fine bold Guayaquil red bark, bright in appearance, fetched 2s. 9d. per lb., and another lot was bought in at 6s. per lb. Bold Huanoca sold at 7d. per lb., down to 5d. for indifferent lots.

COCA-LEAVES.—Some exceptionally-good Ceylon-leaves were sold at 10½d. per lb.; second ditto, at 8d.; and damages, at 10d. Although the price was high we cannot say that it was higher than what has been paid privately, because the quality was exceptionally good.

CUMIN-SEED.—Fair brown Maltese of old crop and weevily sold without reserve at 20s.; fine bold sound was limited at 28s. per cwt.

CUTTLE-FISH.—Medium to bold white partly broken bone realised 2½d. per lb.

DRAGON'S-BLOOD.—The market has been slightly relieved by an arrival of some fine resin, accompanied by some seconds of direct import. It was put up to-day, and the finest lot, dark glassy black, of good colour, part seedy, sold at 18l. per cwt. after some shyness on the part of the bidder. Ordinary to fair lump medium seedy lump sold at 12l.; dull brickly saucers at 5l. 10.

ERGOT.—It is reported that Hamburg is clear of stock; here 1s. 3d. per lb. has been paid for Russian, and 1s. 9d. for Spanish, in each case for very worm-damaged stuff. From 2s. 3d. to 2s. 6d. per lb. is wanted for the better quality of last year's Spanish. In auction 2s. was actually paid for baked and sifted Spanish; the remainder was bought in at 4s. 6d. with appropriate punctuation. Another lot of damp and weevily stuff was limited at 2s.

GALBANUM.—A private sale of dry cream-coloured tear is

reported without a figure. Good white tear, partly blocked and of full flavour, was bought in at 1s. 3d. per lb.

GALLS.—Privately, the market for blue and green Persian galls continues firm, but quiet, owing to the higher prices asked. Small sales of fine blue Smyrna galls have been made at 55s. per cwt. Chinese are offering at 54s. c. and i. Good green Turkey was limited at 50s. per cwt. in auction.

GENTIAN.—The stock is accumulating, and easier rates are ruling—viz., from 18s. to 22s. for fair to bold Mediterranean.

GUAIACUM.—Another arrival of the fine smoky amber-coloured resin was offered to-day. It was free from the greenish colour, but was slightly seedy and sold at 1s. 6d. per lb.; low brown seedy and wooly sold at from 1d. to 1½d. per lb.

GUARANA.—A bid of 1s. 1d. per lb. was refused for good sausage, the limit being 1s. 6d. The market privately has been lower, the article being in poor demand and abundant supply.

GUM MASTIC.—Some beautiful, clear, and white tears, of new crop, were shown, and the rest—thin, straw-tinted—was not much inferior. It was not wanted, however, and no bid was made when offered at 1s. 10d. per lb. East Indian mastic was also offered. We have not the opportunity of identifying it as yet. It is a good, opaque resin, in small tear, resembling opopanax in colour and having the odour of gum thus. It was brought in at 3d. per lb.

HONEY.—In short supply, the total of six sorts including 100 packages of good set white Honolulu, which did not sell; nor did Irish, Australian, Italian, or Syrian. For fair clear Jamaica seconds 19s. to 20s. per cwt. was paid; for set white 22s. was refused, but another lot was sold at that. Some low stuff sold without reserve at 17s.

IPECACUANHA.—Lower. In auction Rio sold at slightly easier rates, although one broker intimated that since the last sales he had sold all he then offered. The following prices were obtained:—Good sound root, rather wiry to fair, 9s. 10d. per lb.; Good ditto, picked, 10s.; rather thin and stringy, but sound, 9s. 7d.; first class damages, 9s. 9d. For good stout well annulated Catagena 6s. 6d. was bid and removed. An arrival of 47 bales of Rio is welcomed to the somewhat shrunken stock in the warehouses.

JALAP.—For common damaged stuff 6½d. has been paid privately this week. Quotations from New York are dearer at 7d. to 7½d. per lb., c.i.f., for sound. In auction 6½d. was bid and declined for an unworked lot of Vera Cruz.

KOLA-NUTS.—Fine bright and bold West India sold at 4l. per lb. Other lots were limited at 3½d. to 5½d.

MENTHOL.—In auction, Kobayashi brand, good dry, sold at 6s. 10d. per lb. subject; privately, the market is firmer, 7s. 1½d. being asked on the spot, and 7s. 1½d. for forward shipment, but auction tone decidedly adhered to the 7s. limit.

NUX VOMICA.—Again lower, 3s. 6d. per cwt. being paid for small to medium common dark East Indian, and 5s. 6d. for small to medium grey ditto.

OIL, BAY.—Good pinky West Indian sold at 6s. 3d. per lb.

OIL, CASSIA, containing 84 per cent. aldehyde, sold at 4s. 3d. per lb.

OIL, GERANIUM (FRENCH).—A parcel of fair oil, put up "without reserve," fetched 9d. per oz.

OIL, LEMONGRASS.—Good dark sold at 3½d. per oz.

OIL, ROSE (Bombay).—Settlings sold at 1d. per oz.

OIL, STAR-ANISE.—Quiet at 6s. 6d. per lb. on the spot. In auction, pure oil (Umney's analysis) part solid, part liquid, sold at 6s. per lb.; others of similar character sold privately, at 6s. 6d. per lb.

The offerings to-day included concrete and liquid oils shown side by side, and guaranteed on Umney's and other analyses to be pure oils. This anomaly is due to the fact that the liquid oils are distilled from flowers and fruit, and have a freezing-point of from 6° C. to 13° C., which is considerably below the freezing-point of the fruit oil. There is no other notable difference between the oils, and in odour and taste the liquid oils seem to be in no way inferior to the solid. Hong Kong advices, dated October 6,

report no business during the fortnight, the quotation being 5s. 11½d. c. and f.

ORRIS ROOT.—For fine Megadore 17s. per cwt. was bid and refused.

OTTO OF ROSE—The offerings consisted of 1897 Bulgarian which was put up without reserve, and realised 8s. to 9s. 6d. per Turkish oz. It was a fair quality, but unequal, and was selling at 22s. per oz. this time last year.

RHATANY.—A parcel of Savanilla was limited at 6½d. per lb.

RHUBARB.—Shensi was in large supply, but part of it was wormy, and this fact must be borne in mind when reckoning the prices, the following being paid:—Canton, good bold round fair fracture, 1s. 1d. per lb.; ditto flat, 1s.; pickings, 10½d.; and some common stuff put up without reserve, 3½d. Shensi, good bold, round, three-quarters pink and one-quarter grey fracture, sold at 2s. 9d.; flat ditto, poor coat, part wormy, sold without reserve at 1s. 4d.; good medium flat, rough coat and poor fracture, sold without reserve at 11d. to 1s.; rough pickings, 10d. High-dried Shensi, flat, good fracture, 11d. A mixed lot of sun-dried and high-dried bold round, sold at 1s. 2d.

SARSAPARILLA.—Grey Jamaica is unobtainable. Native red country damaged sold at 1s. 2d. per lb., and ice-damaged Lima-Jamaica at 11d. Rough Honduras was limited at 1s. 6d. per lb.

SENEGA—No Southern root is to be had on the spot under 1s. 2½d. per lb., the c.i.f. price being 1s. 1½d., and higher rates are likely owing to crop shortage. There is not much demand, however.

SENNA.—Tinnevely was in comparatively small supply, and there was nothing of the very finest quality shown. The market for Alexandrian is very dull; there is little coming forward, but the stocks in London are very heavy. Prices were about ¼d. per lb. above the last sales. Tinnevely, good bold green leaf, part brown, sold at 4½d. to 5½d. per lb.; medium ditto, 2d. to 2½d.; and small to medium at 2d. to 2½d.; pods sold at 1½d. to 2½d. Alexandrian was represented by 134 bales, but there was not a single one sold. The Shannon due here on Sunday brings 390 bales, 7 of which are pods.

SQUILLS.—Fair soft white was limited at 3d. per lb.; 5 cases were sold privately.

TONCA BEANS.—Frosted Para of full flavour sold at 2s. per lb. The Angostura referred to on one or two occasions have now come down to 3s.

TRAGACANTH.—Privately less business has been done this week, owing to the small supply now available. The sales include seconds at 11l. 15s. to 13l., curly thirds 11l. 10s., and fourths 6l. 15s. to 10l. per cwt. In the drug-auctions to-day some very fine thin white flake sold at 12l. 5s. per cwt.

TURMERIC.—Privately Bengal remains steady with sellers at 19s. Cochin finger in moderate demand at rather better prices with sales of fair at 21s. to 21s. 6d. Cochin split bulbs are quoted at 10s. 6d., and Chinese finger at 18s. per cwt. Fine yellow Cochin finger, slightly wormy, sold at 26s., and round ditto, 15s. 6d.; slices ditto, 14s. 6d. per cwt.

VANILLA.—Practically all the offerings were cleared at an advance of about 2s. per lb., with good competition. The following prices were obtained for best qualities of Seychelles:—7 to 7½ inches, 25s. to 27s. 6d.; 6½ to 7 inches, 21s. to 25s. 6d.; 5 to 6 inches, 22s. to 22s. 6d.; 4 to 5½ inches, 20s.; 3½ to 4 inches, 18s. per lb. Two packages vanillon sold at 2s. 6d. and 4s. per lb., subject. The offerings to-day were voluminous, and occupied sufficient time before drugs were reached to cause grumbling. Continental buyers had come over to the sales, and this added tone to the market.

WAX (BEES').—Unaltered generally, but business was done to-day with better competition. Good mixed Australian sold at 6l. 7s. 6d. per cwt. Calcutta, fine bleached, at 6l. 12s. 6d.; unbleached ditto sold privately; softish yellow Italian was bought in at 5l. 10s. to 6l. 12s. 6d.; good fair-coloured Jamaica good orange, 6l. 5s. to 6l. 7s. 6d.; hard ditto, best, 6l. 10s. to 6l. 12s. 6d. Madagascar was limited, at 6l. 2s. 6d. to 6l. 10s. Earthy and wormy Zanzibar sold at 5l. 10s.

Coming Events.

We insert notices of association and society meetings in this section free if they are sent to us, on postcards, by the Wednesday of the week before the meetings are to be held.

Monday, November 14.

Pharmaceutical Society of Ireland, 67 Lower Mount Street, Dublin, at 8.15 p.m. Evening meeting. Lecture by Mr. F. W. Moore, on "Plants and Insects."

Tuesday, November 15.

Bradford and District Chemists' Association, Great Northern Victoria Hotel, Bradford. Lecture on "Nerves," with lantern illustrations, by Dr. C. E. Waddington.

Royal Photographic Society, 12 Hanover Square, W. Photo-mechanical meeting. Mr. A. A. K. Tallent, "On Rapid dry-plates for Process-work," and "Combined Screen and Colour-negatives for Three-colour Printing." Mr. R. Child Bayley, "On the Melting and Setting Points of Gelatine Solutions and their Modification."

Wednesday, November 16.

Royal Microscopical Society, 20 Hanover Square, W., at 7.30 p.m. Exhibition of Thum's slides of diatoms mounted in high refractive media.

The Midland Chemists' Assistants' Association, Exchange Rooms, Birmingham, 9 p.m. Smoking concert.

Thursday, November 17.

Chemists' Assistants' Association, 73 Newman Street, W., at 9 p.m. Discussion on advertising in Pharmacy.

Sheffield Pharmaceutical and Chemical Society. Smoking concert at Bird's Restaurant, Surrey Street, Sheffield, at 7.20 p.m. Admission by ticket, members' friends 1s. each, assistants and apprentices free.

Midland Pharmaceutical Association, Mason University College, Birmingham, at 8.30 p.m. Mr. John Barclay will open a discussion on the 1898 B.P. by reading a paper on the "New Standards."

Chemical Society, Burlington House, at 8 p.m. Papers to be read—"Preparation of Hyponitrite from Nitrite through Oxyamidodisulphonate," by Dr. E. Divers and T. Haga, and five papers on "Nitric Oxide and Hyponitrites," by Dr. E. Divers.

North Staffordshire and District Chemists' Association, Copeland Arms Hotel, Stoke, at 6.20 p.m. Mr. W. B. Allinson will read a paper on "Emulsions," and a resolution in reference to the Pharmaceutical Society will be proposed.

North-east Lancashire Chemists' Association, White Bull Hotel, Blackburn, at 8 p.m. Annual meeting.

Imperial Institute.—The Monday evening lectures for the winter season will commence on Monday, November 14.

The Röntgen Society announces a *conversazione* to be held in St. Martin's Town Hall on Monday, November 21, at 8.30 p.m.

Pharmaceutical Society of Great Britain (North British Branch).—Dr. Ralph Stockman, Professor of Materia Medica and Therapeutics in the University of Glasgow, will open the session on Wednesday, November 23, with a lecture on "Arrow-poisons."

Metropolitan College of Pharmacy.—Fifth annual dinner at the Holborn Restaurant, Saturday, November 26. Dr. F. B. Power, F.C.S., director of the Wellcome Research Laboratories, will preside.

Chemists' Assistants' Association, 73 Newman Street, W. The annual reunion (smoking concert) will be held in the Grand Hall, Freemason's Tavern, Great Queen Street, W.C., on November 24, at 8 p.m. Mr. R. A. Robinson, L.C.C., will be in the chair. Tickets, 1s. 6d. each, can be obtained from members of the council or from Mr. C. Morley, 3 Bucklersbury, E.C.

Burgoyne Burbidge's Cricket Club are getting up a smoking concert to be held at the Cannon Street Hotel on Wednesday, November 23, which is to eclipse all their former efforts. Such performers as Herbert Campbell, from Drury Lane Theatre; Charles King, the English Fregoli; Miss Ruby Verdi, from the Prince of Wales's Theatre, Birmingham, and others, have been engaged. Tickets, 1s. each, may be obtained at 16 Coleman Street.

The Society of Arts, John Street, Adelphi, W.C. The sessional arrangements include a lecture by Professor Geo. Forbes, F.R.S., on "Long-distance Transmission of Electric-power," on November 23, and one by Mr. C. H. Bothamley on "Photographic Developers and Development," on November 20. The Cantor Lectures (Monday evenings) will be on "Acetylene" (four lectures), by Professor Vivian B. Lewes.